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THE AMERICAN ENGINEER

JULY, 1935

PUBLISHED BY
THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

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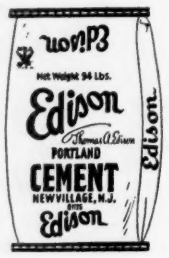

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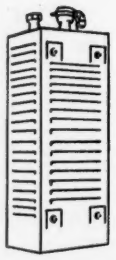

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THE AMERICAN ENGINEER

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WHY E. C. P. D.?

NEWS RELEASE IGNORES LAW

MISSTATEMENTS INJURIOUS TO THE PROFESSION SHOULD BE CHALLENGED

A RECENT news release, emanating from New York, has revealed the incapacity of, and the lack of justification for, the organization styled the Engineers' Council for Professional Development.

To all, except its authors, the intended press release, which is printed herewith, bears the stamp of an amateurish attempt to belittle registration and the value of legal recognition. With New York as the place of release, only a naive person could possibly believe that the said news item is not intended to apply in that State as well as in any other. In the face of facts and conditions as they actually are in New York, such a statement was bound to result in indignation upon the part of those whose standing as citizens and engineers is challenged by what in charity must be termed irresponsible divagations upon the part of uninformed persons.

Following is the release as originally drawn and before protests caused any modification:

"ENGINEERS PLAN TO GAIN RECOGNITION AS A PROFESSION

Seven Representative Societies Join in Program to Establish Criteria of Education and Practice, and Certify Professional Qualifications of Engineers

New York—Who is an engineer, and by what right does he use that title or undertake to practice engineering? At present there is no single criterion by which an engineer's qualifications can be measured, either by his fellows or by the public that uses his services. The legal status of an engineer is determined in some states by a process of examination, registration and licensing. His educational status may be indicated by a college degree, and his technical qualifications by his grade of membership in a national society of high repute. Not all engineers are licensed. Neither do they all possess college degrees nor hold membership in a technical society. From the point of view of professional solidarity the situation is chaotic.

As part of its plan to enhance the professional status of the engineer, the Engineers' Council for Professional Development has undertaken to define minimum qualifications of education and experience, the fulfillment of which will entitle an engineer to be recognized as such among his fellows and in his relations with the public. E.C.P.D. is a conference of engineering bodies directly representing the professional, educational, technical and legislative phases of an engineer's life. The participating bodies are the American Society of Civil Engineers, American Society of Mechanical Engineers, American Institute of Electrical Engineers, American Institute of Mining and Metallurgical Engineers, American Institute of Chemical Engineers, Society for the Promotion of Engineering Education, and the National Council of State Boards of Engineering Examiners.

Through its Committee on Professional Recognition, on which the participating bodies are represented, E.C.P.D. has proposed a "minimum definition of an engineer," and a "program of certification into the profession." The definition of an engineer, sets up minimum qualifications of technical education and practical experience, supported by examinations designed to establish the individual's ability to be placed in responsible charge of engineering work and to render him a valuable member of society. These proposals are now before the governing boards of the constituent bodies of E.C.P.D. When approved they will provide the criterion and the mechanism for professional recognition of engineers.

The program of certification into the profession was drafted by Dr. D. B. Steinman who represents the National Council of State Boards of Engineering Examiners on E.C.P.D. He is also a member of the Committee on Professional Recognition of which Conrad N. Lauer, president of Philadelphia Gas Works, is chairman. The certification program recognizes the fact that the equivalent of a "grandfather clause" must be applied to permit automatic certification of those who are now recognized and accepted as engineers by legal authorities and by the profession. It also contemplates a reasonable transition period for the progressive adjustment of requirements and tightening of standards until the full program of E.C.P.D. for certification can be put into effect. Thus licensed engineers and certain members of technical societies will be automatically eligible to receive certificates according to a chronological plan up to January 1, 1938, at which time the formal certification will be put into effect. When that goal is reached it is hoped and expected that certification of an engineer by E.C.P.D. will set a minimum standard of professional training and experience by which he will be accepted and recognized among his fellows and in his relations with the public."

Without discussing the body of the release it is obvious from the title that the people, the legislature,

(Continued on page 21)

The First Annual Convention

of

THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

to be held in conjunction with

THE ANNUAL CONVENTION

of

THE NATIONAL COUNCIL OF STATE BOARDS OF ENGINEERING EXAMINERS

COLUMBUS, OHIO

OCTOBER 23, 24, 25, 1935

Every Engineer is invited.

Every Chapter: every Society is expected to send representatives.

Neither specialties, grades nor classes are recognized.

This is the first national convention of professional engineers ever held.

Chairman of Committee on Arrangements

PERRY T. FORD

WYANDOTTE BUILDING, COLUMBUS, OHIO

RELIEF WORK REGULATIONS

Preliminary Statement of Information for Sponsors of Works Progress Administration Projects

CIRCULAR No. 1 JUNE 15, 1935

Section 1. *Purpose of Circular*—This circular is issued as a preliminary statement to acquaint prospective sponsors with principles and procedures to be followed in selecting Work Progress ADMINISTRATION projects under the Emergency Relief Appropriation Act of 1936. Information contained in this statement, and the forms included with it, are of a preliminary nature and subject to revision.

Section 2. *The Works Relief Program*—It is the basic purpose of the work relief program to take persons off the relief rolls and to put them to useful work in the shortest time possible. It is intended, as far as possible, to have such persons engaged at their usual occupations. Accordingly, the program of employment embraces many fields of activity, and covers all parts of the Nation.

Public Resolution No. 11, Seventy-fourth Congress, the Emergency Relief Appropriation Act of 1935, provides for the financing of the program and establishes rules, regulations, and penalties for violations. The President is granted broad powers in its execution.

Section 5. *Works Progress Administration*—On May 6, 1935, the President issued Executive Order No. 7034, establishing the Division of Applications and Information, the Advisory Committee on Allotment, and the Works Progress Administration. This order provides that the Works Progress Administration shall be responsible to the President for the honest, efficient, speedy, and coordinated execution of the work relief program as a whole, and for the execution of that program in such a manner as to move from the relief rolls to work on projects or in private employment the maximum number of persons in the shortest time possible.

The Works Progress Administration has the following powers and duties; (1)—To establish and operate a division of Progress Investigation and to coordinate pertinent work of existing investigative agencies of the Government, so as to insure the honest execution of the work relief program. (2)—With the approval of the President, to require uniform periodic reports of progress, recommend appropriate measures for eliminating delay, and recommend termination of projects if they do not economically afford the amount of employment warranting their continuance. (3)—With the approval of the President, to prescribe rules and regulations to assure that as many persons employed on all work projects as is feasible shall be persons receiving relief, and to govern the selection of such persons. (4)—To formulate and administer a system of uniform periodic reports of the employment on such projects of relief and non-relief persons. (5)—To investigate wages and working conditions and to make and submit to the President such findings as will aid the President in prescribing working conditions and rates of pay on projects.

This Executive Order further provides that the Works Progress Administration shall RECOMMEND AND CARRY ON SMALL USEFUL PROJECTS DESIGNED TO ASSURE A MAXIMUM OF EMPLOYMENT IN ALL LOCALITIES.

The order also assigns accounting, disbursing, and purchasing functions to the United States Department of the Treasury and control over all allotment of funds for Administrative expenses to the Bureau of the Budget.

Section 4. *Fundamental Principles*—The President has announced that the following fundamental principles should be recognized in determining the eligibility of projects.

(a) The projects should be useful.

(b) Projects shall be of a nature that a considerable proportion of the money spent will go into wages for labor.

(c) Projects which promise ultimate return to the Federal Treasury of a considerable proportion of the costs will be sought.

(d) Funds allotted for each project should be actually and promptly spent and not held over until later years.

(e) Projects will be allocated to localities or relief areas in relation to the number of workers on relief rolls in those areas.

(f) In all cases projects must be of a character to give preference of employment to those on the relief rolls.

(g) To move from the relief rolls to work on such projects or in private employment the maximum number of persons in the shortest time possible.

Section 5. *Types of Projects*:—Projects for which allotments may be made are grouped into two classes:

1. *Federal Projects*—Such projects originate in departments or agencies of the Federal Government, and are financed and conducted entirely by the Federal Government. This classification includes projects sponsored by (a) Federal Emergency Agencies (such as Rural Electrification Administration, Resettlement Administration, Emergency Conservation Work Organization, Works Progress Administration) and (b) regular departments of the Federal Government (such as the War, Navy, and Agriculture Departments).

2. *Non-Federal Projects*—Such projects are initiated and conducted by a State, Territory, Possession—or any governmental subdivision or agency thereof—a municipality, the District of Columbia— or public bodies thereof—and are financed in whole or in part

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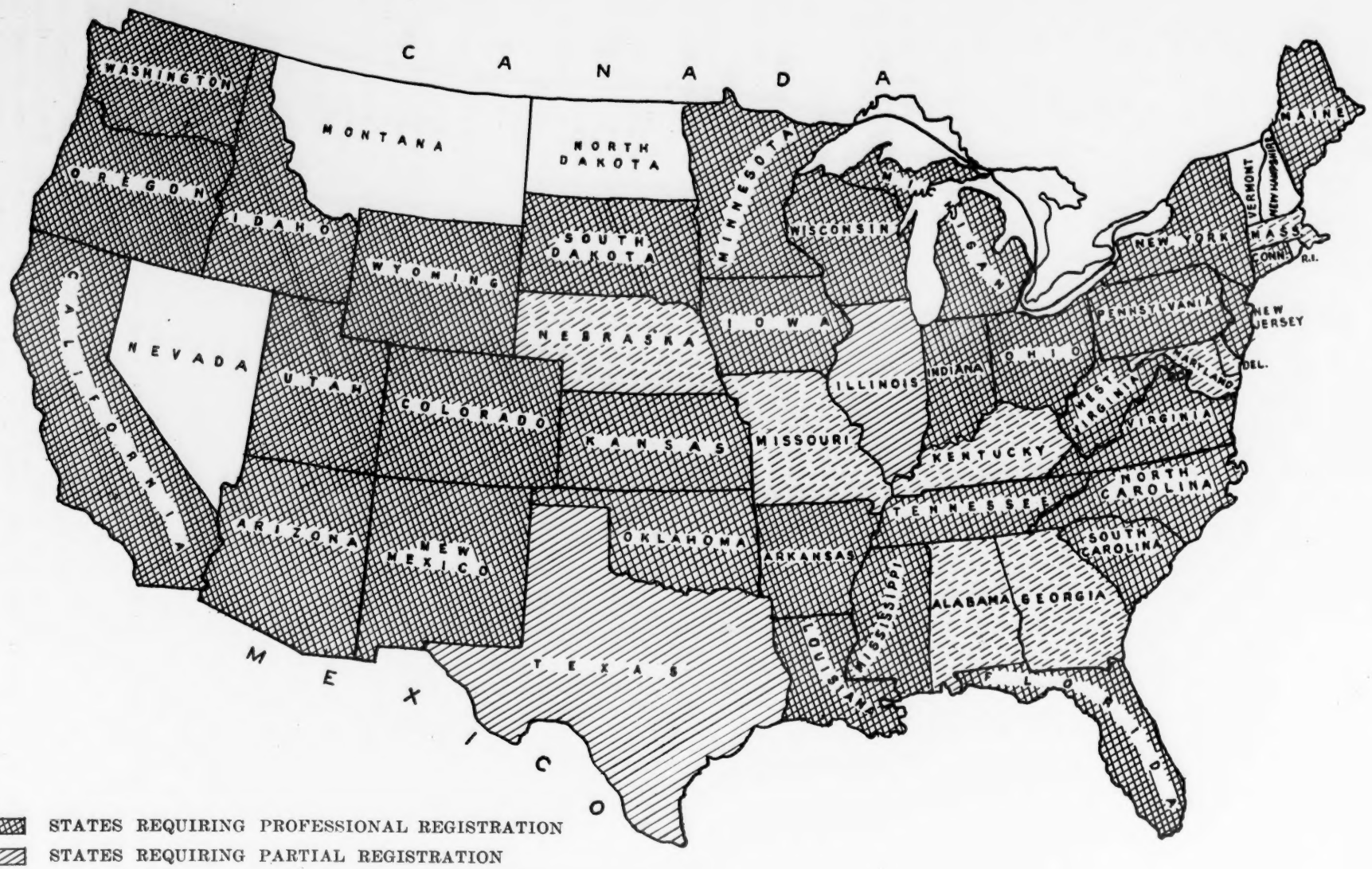


STATUS OF REGISTRATION IN THE UNITED STATES

AS OF JULY, 1935

ENGINEERS AND ADMINISTRATORS

AIDS AND NEEDS OF MODERN SOCIETY

INTERESTING COMMENTS FROM ADDRESS

By
JOHN C. RIEDEL

(Delivered at inauguration as President of the New York State Society of Professional Engineers)

WE who live in civilized communities—and in fact everyone does now—must appreciate that these civilized communities—large cities, rural places—did not grow of or by themselves. Let us picture, if we can, the state of barbaric man perhaps ages ago. He was content with food, with drink, and with such shelter as might be afforded him in crevices and in caves, and out of this, through these many periods and ages, there has developed a type of civilization such as now surrounds us. Through what medium did this come into being? Perhaps man, the ancient man of the distant past, little thought that he was a designer or a constructor, but if we read the pages of history, or if we examine the work of these ancients, we find that as far as we can look, as far as we can read, there were always constructors since the dawn of civilization. These people may have been known by different names, but in this last decade or two, the word "engineer" has come to have a definite bearing and meaning.

Let us pause and consider what the engineer has done. Let us look at the city within which we live, or the community of which we are a part. It consists of multiple units and of multiplied services, not all of which are engineering, but many of them are dependent upon the skill and the art of the engineer as a constructor. But there are others beside the engineers that have a most important part in this state of civilization. We, as engineers, must recognize this, and those of us who have something to do with the education of engineering should see that our engineers are not simply trained so as to be skillful in the use of mathematics or in the application of physical laws, but should be so trained that they can go out into the community and take their places with the lawyer, with the physician and with the administrator, and on an equal plane with them work out the great problems that confront civilization today.

The engineer is responsible for the design of those things that make civilization possible. Suppose we would take out of one of our great cities all those things that have come from the skill and the art of the engineer. We would be thrown back into the barbaric state.

First, there confronts us the necessity for an adequate water supply. We have gone in some of these larger cities of ours hundreds of miles distant into the hills and the mountains. We have gone out into the Great Lakes. Having secured the supply we are confronted with the discharging of the water that has been put through the usual uses. It brings up the question of adequate disposal. We are confronted with the necessity of reaching our homes and reaching our places of business through means of transportation, over proper roads, through tunnels and across bridges, and with the necessity for adequate means of food supply. In fact, we may multiply almost indefinitely, and yet, without proper administration, without men with civic pride, we would go but little distance. I heard the word "politician" used, and often-times, it is used in sort of a derogatory way. Why that should be done is beyond my own comprehension. A politician, to my mind, is a person skilled in the art of political government, skilled in the art of governing a community, skilled in the methods by which these people can appreciate that they are little governed. Those countries, as has often been said, are best governed which are least governed. We have in all countries and communities men who are gifted with governmental inclinations. It does not follow that because a man has taken an engineering course and has received the Phi Beta Kappa, that he perforce is a proper man to be put in charge of an administration. I believe that sometimes our commissioners, those men who actually are in charge of administration, should be engineers, but they must be more. I believe the ideal person would be a man who was skilled in administration, who has a wide aspect of public policy, and then in addition to that, has an engineering training, an engineering aptitude. He should give the best kind of public service. It does not follow, ladies and gentlemen, that an engineer can do anything just because he is an engineer, but I believe that a man, no matter what he is going to perform, is vastly better if he has had a preliminary engineering training.

I believe that our schools—our colleges and technical institutions should so train their men, that all shall have something to do with the application of the arts and sciences. Particularly should engineers learn to keep their own counsel when that is proper. When they express their views they should strive to do so in such manner that those to whom they are speaking will be inclined to accept their statements. This is in itself an accomplishment and one that must be acquired.

ITEMS OF GENERAL INTEREST

NEWS, REPORTS, COMMENTS

NATIONAL SOCIETY ACTIVITIES

Correspondents and readers are invited to submit for publication items of interest to the professional engineer of the country. Such material should be forwarded as quickly as possible in order to keep news up to date.

WASHINGTON NOTES

The Congressional Committee on Expenditures in the Executive Departments held a meeting on June 21st to consider (S. 2665) and (H.R. 7712) which bills provide for a change of name from the "Department of the Interior" to the "Department of Conservation and Works."

(N.S.P.E. has recommended that the name be changed to the "Department of Public Works" and has received assurance of favorable consideration.)

This is the third hearing attended by your representative, and this hearing was devoted entirely to a review of recommendations received from federal departments. Henry A. Wallace, Secretary of the Department of Agriculture, was the first witness to be heard and Mr. Wallace objected to the name "Conservation" as used in the bill. Mr. F. A. Silcox, Chief of the Forst Service, appeared at the two previous hearings as a representative of Mr. Wallace, and also objected to the name "Conservation."

The War Department was represented by General Edward M. Markham, Chief of the Army Engineers. General Markham reviewed the history of the Army Engineer Corps and requested the Committee to make provisions in the bill whereby the army engineers would not be affected in the event of adoption. Of interest was the General's contention that the army engineers' roster contained 587 officers of which 205 were detailed to rivers, harbors, and flood-control projects. There 205 engineer officers supervise a civilian corp of 5,500 men of which 1,500 are engineers and 4,000 are sub-professional men. The General stated that the overhead of the engineer corps amounted to 3.75% of the total budget.

Mr. Harold L. Ickes, Secretary of the Department of the Interior, criticized what he termed "the metaphysical contention of Secretary Wallace with regard to the title of the bill. Of interest was Secretary Ickes' statement in comparison to the Army Engineers' contention of low overhead cost. Mr. Ickes stated that the percent of overhead on P.W.A. was less than one. These are merely statements and not facts as they are unsubstantiated and no doubt would be subject to considerable adjustment were all the facts in evidence. Secretary Ickes drew a comparison between the activities of the Department of the Interior and the Department of Agriculture. He stated that the Department of the Interior had seven bureaus, 25,000 employees, and 375,000 square feet of office space in Washington, whereas, the Department of Agriculture had twenty-two bureaus, 80,000 employees, and 1,000,000 square feet of office space.

The general attitude of the Committee appeared to be in favor of the bill, and

(*Continued on page* 19)

APPRENTICESHIP PROTEST

Draws Reply from President Steinman

The New York Times of June 17th contained the following interesting letter concerning the period of experience qualification exacted of candidates for the license to practice engineering:

To the Editor of The New York Times:

It is worth more than passing comment to observe in today's news that the colleges report marked declines in the enrolment of engineering and architectural students. While it is true that these professions have been severely hit by the decline in construction prevalent during the past six years, there are other causes besides unemployment which have affected registration.

One of the major causes is the enactment of laws in the last few years for the licensing of architects and professional engineers. These laws, commendable for the purpose of raising the standard of requirements for practitioners in these professions, have gone too far in some respects.

For example, Chapter 468 of the Laws of New York provides, in addition to other qualifications for consideration in applying for a license as professional engineer, that the applicant "has had eight years or more of practical experience in professional engineering work of a grade and character satisfactory to the board."

No one can answer the question as to where a young graduate engineer is to get his eight years' experience unless he is numbered among the fortunate few who have close relatives already engaged in the profession. His diploma, no matter how brilliant a student he has been, merely certifies that he has completed a course of study, but he cannot practice his profession except as a menial on any one's terms. And if he is fortunate in procuring work, the Board of Examiners may in its discretion disqualify him from taking the required examination for license on the ground that the type of work is not of satisfactory grade. The requirements for licensing architects are also of similar severity.

Young men are well aware of these unreasonable restrictions. Some I have met who have recently graduated—able, sincere, talented men who would be a credit to their professions—are turned away, not even allowed to take the State examinations. They look back at their years of earnest work and study and wonder why they spent time to prepare for work for which they were by nature endowed but which they are prevented from pursuing by law. Unless this is radically changed, our young men will not study architecture or engineering.

JACOB MARKS.

Brooklyn, June 14, 1935.

(*Continued on page* 18)

TITLE ENGINEER PROPOSED

President Steinman Inaugurates Plan

The following letter, from the President of the National Society, calls for comment. The reasoning is good and the proposal worth trying.

July 8, 1935.

Engr. Arthur V. Sheridan,
Bronx County Building,
New York City.

Dear Engineer Sheridan:

This letter is written to inaugurate the suggestion that members of the engineering profession be identified, when addressing or referring to them, by using the designation Engineer or the abbreviation Engr. before their names instead of Mr. or other title. Although such procedure cannot be protected by copyright, it can be established by custom and usage with such restrictive protection as is afforded by the state registration laws.

Members of the medical profession are invariably addressed as Doctor or Dr. Members of the legal profession are frequently addressed as Counselor, and no others may be so addressed.

In practically all European and Latin-American countries, law and custom have firmly established the invariable usage of prefixing the restricted title Ingr. or Ing. to the names of qualified members of the engineering profession. These are abbreviations of such words as Ingenieur or Ingeniero, and the English equivalent is Engineer, abbreviated Engr.

The use of such distinctive professional designation has a definite value in emphasizing the professional standing of the individual and the fact that, by study and training, he has attained full professional status. It also has a definite advertising value for the profession by connoting exclusiveness or delimitation through the high qualification standards of a learned and honorable profession.

American usage and custom furnish plenty of precedents for the use of prefatory designations substituted for the commonplace prefix of Mr. Besides such professional designations as Dr. and Counselor, we observe such titles as Senator, Congressman, and Governor, for men in public office, and such designations as General and Colonel for men of military rank.

In the official personnel of our National Society of Professional Engineers, we have men with such varying titles as Colonel, Major, Senator, Dean, Professor, and Dr. The effort to keep these titles straight in communications and reports leads to difficulties and occasional embarrassment. The use of the designation Engineer, uniformly applied, will be far more convenient and significant.

Before such custom can become widespread, someone has to make a start. The

(*Continued on page* 19)

THE TULANE UNIVERSITY LIBRARY NEW ORLEANS

STATE ACTIVITIES REPORTED

Leglislation and National Convention News

The American Engineer again asks the several States to submit material for each issue. Every Society is invited, in fact urged, to present full reports of the activities of Chapters or affiliations. Correspondents are requested to forward news items immediately after meetings or occurrences take place.

OREGON

Activities Discussed

At the recent meeting of the Board of Directors of the Professional Engineers of Oregon the problem of arousing interest was discussed at length.

Excerpts from the minutes are:

"Practically every branch of the engineering profession now has its own individual association:—Electricals, Mechanicals, Civils, Chemicals, each have their own organization, and then there is the Society of Military Engineers, the Electric Club, the Northwest Electric Light & Power Association local group meetings, the newly formed group of Geologists, and perhaps several others. To be sure eligibility to many of these other groups does not constitute right of membership in the Professional Engineers, nevertheless, at their meetings are discussed matters of engineering import, and therefore of interest to Professional Engineers. What niche then can our own Society fill that either cannot or is not undertaken by any of the other groups? What general program of activity can the Professional Engineers follow out that will be of interest and helpful to its members, of value to the community and state at large, and at the same time have within its programs certain elements which are peculiarly significant of our own Society's constitutional background?

Our Board determined at its first meeting this year to have 4 regular evening meetings throughout the year. These 4 meetings should be so organized and conducted that they will constitute an appeal, not only for large attendance by local members, but should act as an inducement for out-of-town members to come in and participate. In addition to these, the Society itself must so function that those out-of-town members who find it impossible to ever attend any of the Portland meetings should, nevertheless, find the work of the Society of constructive benefit to them as registered professional engineers.

Now, what shall we do, and how shall we do it?

In our Constitution, and under Article II, Section 1, we find, "The Object of this Society shall be:

1. The advancement of engineering in its several branches;
2. The promotion of the best interests of the public in its relations with the engineering profession;
3. The professional improvement of its members;
4. The encouragement of social intercourse among men of practical science;
5. The maintenance of a code of professional conduct which will best serve the interests of its members and society in general and which shall be expressed in a Code of Ethics and rules of practice as set forth in the By-Laws.

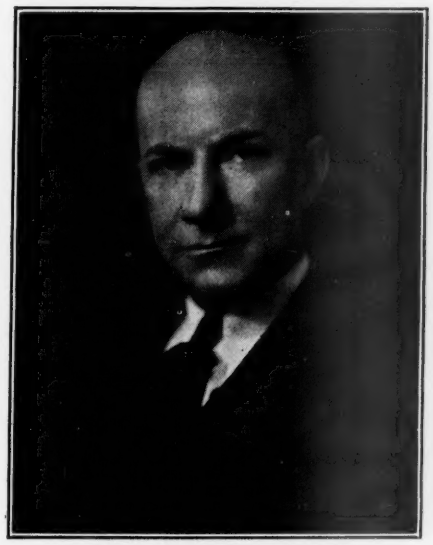
(*Continued on next page*)

CONNECTICUT

Adopts Engineers' Registration Law

W. S. CONLON

The campaign for engineering registration in the State of Connecticut was brought to a happy conclusion by Governor Wilbur L. Cross on June 13th on the occasion of his signing, with a pen furnished by the writer, Senate Bill 728—requiring the registration of professional engineers and land surveyors. The history of engineering registration in Connecticut indicates that the first bill (H.B.253) was submitted to the State Legislature in 1921, and met with unfavorable action. In 1930 engineering registration was promoted by a group of engineers in Stamford. However, it was not until 1932 that a definite campaign for registration was inaugurated. The Connecticut Conference for registration of professional engineers and architects



HON. JOHN F. LYNCH

President—Pro-Tem—Connecticut Senate Director—National Society of Professional Engineers

(Who, With Senator Chas. F. Rumpf, Also an Engineer, Sponsored and Directed Legislation for Registration).

was organized on May 25th, 1932, following a preorganization meeting held at the Davenport Hotel in Stamford on May 11th, 1932, on which occasion the following speakers were present: Dr. D. B. Steinman, Mr. A. V. Sheridan, Mr. L. B. Scheide and the late Mr. Henry R. Buck of Hartford. Mr. Buck was one of the most progressive engineers in the State of Connecticut. He was one of the organizers of the Conference and one of its most ardent supporters, and shortly before his untimely death approved of the creation of the Connecticut Society of Professional Engineers. With reference to the Connecticut Con-

(*Continued on next page*)

NEW YORK

By RAPHAEL J. SMYTH

Engineers' Powers in the Architectural Field

Mr. Harold G. Rice, former president of the Oneida County Chapter, was recently commissioned by the Board of Supervisors of Oneida County, to prepare plans for a new building of the Oneida County Hospital. As he holds a license as a professional engineer, but not as an architect, a question arose as to the legality of the commission under the State Education Law.

Consideration was given to the legal point raised and the Oneida County Attorney recorded his opinion that in the scope of professional practice the professions of engineering and architecture have identical powers.

The Board of Managers of the Hospital confirmed its commission of Mr. Rice, as an "engineer," to carry out the work.

Engineers on Work Relief in New York City

Mr. John C. Riedel, President of the New York State Society, recently addressed a communication to Mr. Francis Boardman, Director of the Works Division of the Emergency Relief Bureau of New York City, urging (1) that the classifications and salaries recommended by the New York City Chapters' Special Committee on the Standing and Salaries of Licensed Professional Engineers, and approved by the New York State Society at its annual meeting held on May 18th, 1935, be recognized and conformed to by the Works Division of the E. R. B. and (2) that no one shall be given or allowed to retain the title, "Engineer," unless he is licensed to practice professional engineering.

Mr. Boardman, who is licensed to practice professional engineering in this State, in his acknowledgment of Mr. Riedel's letter, gave his assurances that he is 100% sympathetic on both points raised and that he is endeavoring to bring about beneficial changes in the organization under his jurisdiction.

A Professional Problem to Be Debated

The American Society of Refrigerating Engineers has offered a prize of $200 to the winning team and $100 for the best speech in a debate between The Polytechnic Institute of Brooklyn and The Stevens Institute of Technology on the subject "Resolved that admission to the practice of engineering should be restricted by such selective limitations as to render engineering a closed profession in the same sense as are law and medicine."

The Society and both institutions hope to make the debate accomplish two purposes: stimulate an interest in good speaking in schools of engineering and

(*Continued on page* 13)

OREGON

(*Continued from page* 11)

6. The support of the laws providing for the regulation of engineers."

At the conclusion of the discussion Mr. Merwin summarized the general opinion concerning management of the Society in the following terms:

1. Tuesday luncheon meetings have been very successful and shall be encouraged.

2. Regular quarterly meeting of the Society shall be held on the second Wednesday of March, June, September and December and special effort shall be made by the Program Committee to have programs at these meetings that are worthy and important enough to attract substantial attendance.

3. Professional status of engineers shall be improved and fostered as much as possible. We should not forget that this Society was organized primarily to support the Engineer's registration law.

4. We should foster and encourage a study group among our membership for the purpose of reviewing and reporting upon various subjects of community interest which are approved for study by the Board of Directors."

Comment and Suggestion:

1. Avoid technical matters. Leave same to other societies.

2. Participate in civic matters wherein the engineer can be of service to the community or state.

3. Enforce the provisions of the law in the same manner that legal and medical associations do.

4. Establish chapters and county units wherever possible. A dozen residents can represent a county better than 500 non-residents and will receive more recognition politically and socially within the county.

5. Stress legislation, codes, fees, salaries and public relations.

6. Make studies and reports suitable for publication as items of public interest and welfare.

CONNECTICUT

(*Continued from page* 11)

ference it may be well to quote from the 1934 annual report of the Connecticut Society of Civil Engineers the following statement with reference to the 1933 Bill:

"The Connecticut Conference of Engineers and Architects initiated the large amount of work that was done."

The Registration Bill of 1935 was prepared by the Joint Legislative Committee of the Connecticut Society of Professional Engineers and the Connecticut Society of Civil Engineers, and the united support of all engineers in favor of registration was of considerable moment.

To Senator Charles F. Rumpf and Senator John F. Lynch (both engineers) the Connecticut Society of Professional Engineers are indeed grateful for their masterly handling of a situation requiring considerable legislative experience. Senator Rumpf was a member of the Connecticut Conference for Registration of Engineers and Architects and presented the 1933 Bill, and was Chairman of the Committee which submitted the 1935 Bill.

Senator John F. Lynch, President, pro-tem of the Senate and a National Director of the Connecticut Society of Professional Engineers, we also applaud for the magnificent handling of the legislative campaign for engineering registration.

To the Chairman and members of the Legislative Committee of the Connecticut Society of Professional Engineers, and the Public Relations Committee of the Connecticut Society of Civil Engineers, we are grateful for the many personal sacrifices made in the campaign.

Now that the Engineers Registration Law has been enacted we trust that all engineers in the State of Connecticut will register, and to the engineers exempted under Section 9, we call attention to the fact that their exemption is contingent upon their continued employment in the classifications noted, also that these exemptions are not recognized in many of the other States of which there are thirty-three having Registration Laws.

We suggest that all qualified engineers register, whether or not they are included in the exempted classification, as one's status may change and applications for registration cannot be acted upon overnight.

Herewith is a copy of Senate Bill 728, if you have left the job of securing its enactment to —"George"—George has come through,—it's up to you to register, and affiliate with your local chapter of the Connecticut Society of Professional Engineers, if you are a member and worthy of your professional status, you will attend your chapter meetings and help those who have been endeavoring to help you.

SENATE BILL NO. 728

An Act Concerning the Practice of Professional Engineering and Land Surveying

Passed by the Senate, May 28, 1935—Approved by the House, May 31, 1935—Signed by the Governor—June 13, 1935.

(Compliments of The Connecticut Society of Professional Engineers).

Section 1—*Board of Registration.* A state board of registration for professional engineers and land surveyors is created whose duty it shall be to administer the provisions of this act. The board shall consist of five professional engineers, appointed by the governor. Each member of the board shall have been a resident of this state for at least ten years, shall have been engaged in the practice of the profession of engineering for at least ten years, and in responsible charge of important engineering work. The governor may remove any member of the board for misconduct, incompetence or neglect of duty. The members of the first board shall be appointed within ninety days after the passage of this act, to serve for one, two, three, four and five years, respectively; thereafter, all appointments shall be of registered professional engineers for a term of five years. Each member of the board first appointed hereunder shall receive a certificate of registration under this act from said board. The members of the board, other than the secretary, shall receive no compensation for their services, but shall be reimbursed for all actual traveling, incidental and clerical expenses necessarily incurred in carrying out the provisions of this act. The board shall hold a meeting within thirty days after its members are first appointed, and, thereafter, shall hold at least two regular meetings each year. The board shall elect or appoint, annually, from their members a chairman and a secretary. The secretary of the board shall keep a true and complete record of all proceedings of the board. On request of the secretary of the board, the comptroller shall provide a suitable room for its meetings. The board shall have power to make all necessary rules and regulations and by-laws, not inconsistent with this act. In carrying into effect the provisions of this act, the board may subpoena witnesses and compel their attendance and also may require the production of books, papers and documents in any proceeding involving the revocation of registration or practising or offering to practice without registration. Any member of the board may administer oaths or affirmations to witnesses appearing before the board. If any person shall fail to appear in response to such process, or, if having appeared in obedience thereto, he shall refuse to answer any pertinent questions put to him by any member of said board or its counsel, he shall, upon presentation of such facts to the superior court, be subjected to such fines and penalties as might be imposed by said court should such failure or refusal have occurred in any civil action pending in said court.

Section 2.—*Receipts and disbursements. Roster of Registrants.* The Secretary of the board shall receive and account for all moneys derived under the provisions of this act, and shall pay the same monthly to the state treasurer, who shall keep such moneys in a separate fund to be known as the "Professional Engineers' Fund." Such fund shall be continued from year to year. All moneys in the "Professional Engineers' Fund" are specifically appropriated for the use of the board. The secretary of the board shall receive a nominal salary recommended by the board and approved by the state board of finance and control in addition to expenses incurred as provided for in section one. Subject to the approval of the board of finance and control, the board may employ such clerical or other assistants as are necessary and may make expenditures of this fund for any purpose which, in the opinion of the board, is reasonably necessary for the proper performance of its duties. Under no circumstances, shall the total amount of warrants issued by the state auditor in payment of the expenses and compensation provided for in this act exceed the total amount of the examination, registration and renewal fees collected as herein provided. Annually, as of September thirtieth, the board shall submit to the governor a report of its transactions of the preceding year, and shall also transmit to him a complete statement of the receipts and expenditures of the board. The board shall keep a register of all applications for registration with the action of the board thereon. A roster showing the names and places of business of all registrants shall be prepared by the board during the month of January of each year. Copies of this roster shall be mailed to each registrant and placed on file with the secretary of the state and with the town clerk of each town.

Section 3—*General Requirements for Registration.* No person shall practice or offer to practice the profession of engineering in any of its branches, including land surveying, or use any title or description tending to convey the impression that he is a professional engineer or a land surveyor unless he shall have been duly registered or exempted under

the provisions of this act. The following shall be considered as minimum evidence satisfactory to the board that the applicant is qualified for registration as a professional engineer or land surveyor, respectively: (a) Professional engineer: Graduation from an approved course in engineering in a school or college approved by the board and either a specific record of an additional four years of active practice or passing an examination in engineering work of a character satisfactory to the board. (b) Land surveyor: Graduation from an approved course in surveying in a school or college approved by the board and either a specific record of an additional two years of active practice or passing an examination in land surveying work of a character satisfactory to the board. (c) In lieu of graduation from an approved school or college, successfully passing a written or written and oral examination prescribed by the board and a specific record of eight years of active practice of professional engineering, or six years of land surveying of a character satisfactory to the board. (d) At any time within five years after this act becomes effective, the board may accept as evidence, in lieu of a prescribed examination, that the applicant is qualified for registration as a professional engineer or a land surveyor, a specific record of ten years or more of lawful practice in engineering work, or eight years of land surveying work, respectively, of a character satisfactory to the board and provided, at least five years of this active practice shall have been in responsible charge of important work. In considering the qualifications of applicants, responsible charge of engineering teaching may be construed as responsible charge of engineering work.

Section 4—*Examinations.* A candidate failing on examination may apply for re-examination at the expiration of six months and will be re-examined without payment of additional fee. Subsequent examination will be granted upon payment of a fee to be determined by the board.

Section 5—*Certificates and Seals.* The board shall issue a certificate of registration, upon payment of a registration fee as provided for in this act, to any applicant who, in the opinion of the board, has satisfactorily met all the requirements of this act. The issuance of a certificate of registration by this board shall be evidence that the person named therein is entitled to all the rights and privileges of a registered professional engineer, or of a registered land surveyor, while such certificate shall remain unrevoked or unexpired. Nothing in this act shall be construed as permitting a person registered only as a land surveyor to practice any other branch of the profession of engineering nor as permitting a registered professional engineer to practice land surveying unless he shall be a holder of a valid combined certificate of registration as professional engineer and land surveyor. The board shall have authority to make rules and regulations pertaining to the design and use of seals by registrants under this act.

Section 6—*Practitioners at Time Act Becomes Effective.* At any time within one year after this act shall become effective, upon application therefor and the payment of the registration fees specified in section seven, the board shall issue a certificate of registration, without oral or written examination, to any professional engineer or land surveyor who shall submit under oath evidence satisfactory to the board that he is of good character, has been a resident of the state for at least one year immediately preceding the date of his application and was practising professional engineering if an engineer, or land surveying if a land surveyor, at the time this act became effective, and has had responsible charge of work of a character satisfactory to the board. After this act shall have been in effect one year, the board shall issue certificates of registration only as provided for in section three or section eleven.

Section 7—*Applications and Registration Fees.* Applications for registration shall be on forms prescribed and furnished by the board. The registration fee for a professional engineer shall be fifteen dollars, five dollars of which shall accompany the application, the remaining ten dollars to be paid upon issuance of the certificate. The registration fee for a land surveyor shall be ten dollars, five dollars of which shall accompany the application, the remaining five dollars to be paid upon issuance of the certificate. The registration fee for a combined certificate of professional engineer and land surveyor shall be twenty dollars, ten dollars of which shall accompany the application, the remaining ten dollars to be paid upon issuance of the certificate. Should the board refuse to issue a certificate of registration to any applicant, the initial fee deposited shall be retained as an application fee.

Section 8—*Expirations and renewals.* Certificates of registration shall expire on the last day of December following their issuance or renewal and shall become invalid on that date unless renewed. The secretary of the board shall notify each person registered under this act of the date of the expiration of his certificate and the amount of the fee that shall be required for its renewal for one year, which notice shall be mailed not later than December first of each year. Renewal of a certificate may be effected at any time during the month of December by the payment of a fee of two dollars. Failure to renew such certificate as required above shall not deprive any registrant of the right of renewal, but such renewal may be effected only upon such terms and conditions as the board shall determine.

Section 9—*Exemption.* The following-named persons shall be exempt from the provisions of this act: (a) An employee or a subordinate of a person holding a certificate of registration under this act, or an employee of a person exempted from registration by class (d) or (e) of this section, provided the practice of such employee shall not include responsible charge of design or supervision; (b) officers and employees of any public utility corporation whose operations are under the jurisdiction of the public utilities commission, or of any manufacturing corporation, while engaged in the performance of their employment by such corporations; (c) officers and employees of the government of the United States while engaged within this state in the practice of the profession of engineering or land surveying for said government; (d) a non-resident of this state, having no established place of business in this state, practicing or offering to practice herein the profession of engineering or land surveying, when such practice shall not exceed in the aggregate more than thirty days in any calendar year, provided such person shall be legally qualified by registration to practice said profession in his own state or country in which the requirements and qualifications for obtaining a certificate of registration are not lower than those specified in this act; (e) a person resident in this state but whose arrival in the state is recent, provided such person shall have filed an application for a certificate of registration as an engineer or land surveyor and shall have paid the required fee therefor.

Section 10—*Revocations and Re-Issuances of Certificates.* The board shall have the power to revoke any certificate of registration, after thirty days' notice of, and hearing on, such revocation, if it shall be shown that the certificate was obtained through fraud or misrepresentation; if the holder of the certificate shall have been found guilty by the board, or by a court of competent jurisdiction, of any fraud, deceit, gross negligence, incompetency or misconduct in his professional practice. Appeal from the decisions of the board concerning the issuance or the revocation of registration under the provisions of this act may be taken to the superior court of Hartford County. The board, for reasons it may deem sufficient, may re-issue a certificate of registration to any person whose certificate has been revoked. A new certificate of registration to replace any certificate revoked, lost, destroyed or mutilated may be issued, subject to the rules of the board, and a charge of two dollars shall be made for such issuance.

Section 11—*Reciprocity.* The board may, upon application therefor, and the payment of a fee of ten dollars, issue a certificate of registration as a professional engineer, or as a land surveyor, or a combined certificate of professional engineer and land surveyor, to any person who holds a certificate of qualification or registration issued to him by proper authority of any state or territory or possession of the United States, or any country, or the national bureau of engineering registration, provided the requirements for the registration of professional engineers or land surveyors under which such certificate of qualifications or registration was issued shall not conflict with the provisions of this act and shall be of a standard not lower than that specified in section three of this act.

Section 12—*Violations and penalties.* Any person who shall knowingly or wilfully violate any provision of this act shall be fined not more than five hundred dollars or be imprisoned not more than three months or both. The secretary of the board shall aid in the enforcement of this act. This act shall not apply to architects registered under the provisions of chapter 167a of the 1933 supplement to the general statutes, in the performance of work incidental to their profession.

NEW YORK

(*Continued from page* 11)

contribute to the discussion of this important subject.

The debate will take place in the fall and the debaters are now engaged in gathering and preparing their material.

(*Continued on next page*)

Mr. S. M. Tucker, Professor of English in the Polytechnic Institute of Brooklyn and Dr. D. B. Steinman are keenly interested in this contest and are working enthusiastically for its success.

Annual Convention of the A. I. E. E.

The Education Session of the Annual Convention of the A. I. E. E. was held at Ithaca on June 26th, 1935. It was addressed by Dr. D. B. Steinman, President of the National Society, on the subject of "Engineers' Registration and Related Problems of the Profession."

CHAPTER NEWS

ERIE COUNTY

A luncheon-meeting of the Erie County Chapter was held at the Buffalo Athletic Club on June 27, 1935, at which Mr. Timothy N. McCormick presided.

Dr. D. B. Steinman, President of the National Society of Professional Engineers and guest speaker of the occasion, aroused the gathering by an eloquent address on the progress and prospects of the national movement.

There was a record-breaking attendance of 71 engineers establishing a new standard of interest and enthusiasm for the engineers of Erie.

Mr. Alfred L. Williams and Mr. J. W. Naylor, President and Secretary, respectively, and a number of other members of the Niagara County Chapter were present.

Major Theron M. Ripley and members of the Chapter are effectively supporting the Senate and House bills, S. No. 2665 and H.R. No. 7712, which propose the creation of a Department of Conservation and Public Works.

The resignation of Mr. Fletcher H. Burke, former Secretary of the Chapter, was recently accepted with regret. Acknowledgment of appreciation is made of the generous contributions of time and effort which Mr. Burke made for several years in organizing and advancing the professional movement in Erie County.

Courtesy: Mr. Elias H. Anderson, Secretary.

KINGS COUNTY

A notably large gathering of engineers attended the meeting of the Kings County Chapter, on June 20, 1935, at the Brooklyn Engineers' Club, and extended their felicitations to Prof. John C. Riedel who, upon his recent election to the Presidency of the State Society, attained the unique distinction of holding the offices of the Presidency of the State Society and of his Chapter simultaneously.

Mr. James O. Hoyle, Investigator for the Professions, State Department of Education, discussed most informatively the Engineers' Licensing Law and its enforcement.

Courtesy: Mr. Roy C. Cram, Secretary.

WESTCHESTER COUNTY

A get-together meeting, to which all the licensed professional engineers of Westchester were invited, was held under the auspices of the Westchester County Chapter, in the Exhibition Hall at the County Center, White Plains, on June 5th, 1935.

Mr. Charles H. Sells presided; plans for increasing the organized power of the profession in the state and nation were discussed; much interest was manifested; the beer and sandwiches which were served after the meeting were enjoyed; the occasion was emphatically pronounced a success.

Two questionnaires have been sent by the Chapter to each licensed professional engineer or land surveyor in the county; one inquires into the status of the employment of the addressee; the other aims at a better organization of the abilities of the individual members in an endeavor to maximize the entertainment and beneficial possibilities of the monthly meetings.

Courtesy: Mr. Francis J. Laverty, Secretary.

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UTAH

Society Changes Name

On June 21st, last, the Utah Society of Engineers changed its name to the Utah Society of Professional Engineers. Following close upon the passage of the recent Registration Law, this action on the part of the Utah Society indicates the value and the significance of the State law.

Mr. John C. Ullrich, who has been for so many years one of the real sponsors of registration finally succeeded in bringing to his own State that which he was so instrumental in introducing to others.

Congratulations to the Utah Society of Professional Engineers and the hope that the said Society will lend influence for the continuation of its objectives by affiliating with the National Society.

MAINE

Requests Information

The National Society has received inquiries from Maine relevant to organization activities, funds and aims of the Society. Strange indeed are the impressions relevant to the enormous outlay of the National Society. Would indeed that it were possible.

It is interesting to note that the American Medical Association is reported to have spent over $30,000 on legislation during the past year. With such a sum the National Society of Professional Engineers could rejuvenate the profession.

The support of the Maine Association is greatly needed by the National Society and an affiliation is hoped for.

CANADA

Manitoba Exchanges

The Association of Professional Engineers of the Province of Manitoba and the National Society are exchanging proposals and data relevant to legislation and Examining Boards.

Despite the fundamental difficulties of government, the States and the Canadian Provinces have much the same problems to contend with. Strange to say, the engineer is often a greater problem than the layman.

NEW JERSEY

Plans Membership Campaign

An extensive membership committee, with Mr. Arthur S. Hobby as its Chairman, is planning a vigorous campaign with a view to securing the support of every licensed practitioner of the State of New Jersey.

The National Society, through President Steinman, has pledged its support in the hope that Pennsylvania, Connecticut, Illinois, Kentucky, South Carolina, West Virginia and other member state societies may emulate New Jersey in bringing to the New Deal of Engineering every recognized engineer of the several states.

PENNSYLVANIA

Philadelphia Chapter

From Mr. Walter E. Witte, Secretary of the Philadelphia Chapter, comes the announcement that the June chapter meeting was held in the auditorium of the Franklin Institute, and was preceded by a concert.

The principal subject of discussion was the formation of chapters throughout the State, with Messrs. Scott and Hires in charge of the endeavor. Mr. Hires is to act as Campaign Manager and tour the State, interview Registered Engineers and select key men to organize chapters in their respective localities. Lists of the names of engineers in the various counties have been compiled by the Registration Board of Harrisburg, which lists will be used as a guide in conducting the campaign.

President Samuel I. Sacks has promised to make every possible effort to get the Registration Board to join the State and the National Society in a body. The object being to have the members of the Boards in the various localities constitute key men for their respective sections, and in this way make the state body equal in prestige and number to that of the sister states of Ohio, New Jersey and New York.

A special appeal is being made to all Registered Engineers to uphold the fair name of the 'Keystone State' and make her the equal of the sister states in the matter of representation in the National Society. Pennsylvania is urged not to wait for the men in neighboring states to do its work for her.

The Legislative Committee reports that the H.R. Bill 1750 is still in committee, and ventures the opinion that as a result of the campaign against the bill, in which 3,500 Registered Engineers were circularized, it will not come out of the said committee before the Legislature adjourns on June 21st.

The meeting adjourned, whereupon the members and their families proceeded to the Planetarium where an illustrated lecture on the starry skies was enjoyed for an hour. The lecturer then took his audience to the North Pole, North Cape of Norway and to London and showed the relative positions of the stars, sun and moon in these various parts of the earth at different times of the year.

Some notion of the activities of the Pennsylvania Society in protecting the interests of the Professional Engineer can be obtained from the attached items.

ENGINEERING NEWS RECORD

May 23, 1935

Vigilance Needed

If engineers are to keep their rights from being encroached upon, they must maintain a close watch upon the many bills introduced into federal and state legislatures. The need for such watchfulness was stressed by Arnold G. Chapman, retiring president of the New York State Society of Professional Engineers, in reviewing the legislative work of that society at its annual meeting. Occasionally legislation is proposed with the evident purpose of limiting the activities of engineers, but more frequently the limitation is hidden in some innocent-looking phrase. A case in point is found in proposed changes in the architects' practice act in Pennsylvania, now before the legislature, noted in our news pages this week. Generally, the proposed changes are desirable and in conformity

with current efforts to limit the use of the terms "architect" and "engineer" to those qualified to use them; but one apparently minor change in the exemption clause would practically exclude engineers from all building work in Pennsylvania. Similarly the activities of engineers in appraisal work or as expert witnesses in legal cases may be jeopardized by laws that would appear to have no bearing upon the profession. This condition calls for eternal vigilance supplemented by the ability to recognize the many ways in which the work of engineers might be limited. The work involved is arduous and time-consuming, but it provides a most fruitful field of service for the professional societies in the interests of their membership.

PENNSYLVANIA LEGISLATIVE BILL WOULD LIMIT ENGINEERS' WORK

The filing of building plans and the supervision of building construction by engineers in the state of Pennsylvania would be prohibited to all practical purposes by a bill to amend the architects' practice act of 1919, introduced into the House of Representatives late in March and now before the House committee on education.

The bill amends the architects' practice act of 1919. Ostensibly its purpose is to strengthen the law as regards the use of the term architect and to limit the performance of architectural services. The major changes are not objected to by engineers; they are in line with similar changes made in engineer license laws. However, a proposed change in the exemption clause of the existing law has a direct bearing. The clause in question is as follows, the new works being in italic:

"This act shall not be construed to prevent persons other than architects from filing applications for building permits or obtaining such permits, nor shall it be construed to prevent such persons from designing buildings and supervising their construction provided 'that the public safety or health is not involved and provided further that' their drawings are signed by the authors with their true appellation as engineer, or contractor, or builder, or carpenter, but without the use in any form of the title architect." As public health or safety is involved in any building of any magnitude, this section would appear to limit the supervision of construction of all but very small structures to architects.

THE EVENING BULLETIN
Wednesday, May 22, 1935

ENGINEERS DISAPPROVE ROOSEVELT'S WAGE PLAN

Phila. Chapter Fears It Will Further Weaken Morale

The Philadelphia Chapter of the Pennsylvania Society of Professional Engineers disapproves President Roosevelt's executive order on compensation for professional men on the $4,000,000,000 work-relief program.

This announcement was made to-day by Willard S. Conlon, treasurer and acting secretary of the national society. Mr. Conlon said the rates will destroy the already-weakened morale of the members of the engineering profession and lower standards of the profession.

He said also the engineers feel there is no justification for the decreed rates, and accented that the method of attacking the problem is wrong.

"If a great nation is to create additional wealth," he said, "it must direct the efforts of its men into channels resulting in permanent improvement.

"Throughout the country, and especially in the East, there is a growing realization of the ultimate advantages of contract work."

3,200 postal cards were sent to Registered Engineers to warn them of proposed legislation and asking that they enter their protest.

YOUR RIGHT TO PRACTICE ENGINEERING JEOPARDIZED!

H.R. BILL 1750

Introduced at Harrisburg by Mr. Ominsky at Request of Architects

This Bill PROHIBITS Registered Professional Engineers from

1—Filing Applications for Building Permits.

2—Obtaining Permits for Same.

3—Designing Buildings.

4—Supervising Construction.

It is YOUR DUTY to PROTEST this Bill IMMEDIATELY to your Senator and Representative at Harrisburg. This Bill MUST BE DEFEATED in order TO INSURE the continuance of YOUR PROFESSION

The following is a list of the Officers, Directors and Committeemen for the year:

Board of Directors

President, Samuel I. Sacks; Vice-President, John Edgar Hires; Secretary, Walter E. Witte; Treasurer, A. A. Townsend; State Director, Samuel I. Sacks; Chapter Directors: Harold C. Rawley, Robert D. Peter, George N. Hyland, Milton H. Blez, Ralph Mellor, David C. Finston.

Committees

Administrative: Samuel I. Sacks, Chairman; John Edgar Hires, Walter E. Witte, Ralph Mellor, Milton H. Blez.

Legislative: Reginald C. Scott, Chairman; Abraham C. Fisher, Samuel I. Sacks.

Membership: Reginald C. Scott, Chairman; Henry F. Hamberger, John E. Hires, Robert D. Peter.

Meetings: Ralph Mellor, Chairman; David C. Finston, Milton H. Blez, Joseph E. Gill, Harold C. Rawley.

Entertainment (Sub-Committee Meetings): George D. Yocum, Chairman; Joseph E. Gill.

Ethics and Practice: Frank E. Hahn, Chairman; Henry H. Quimby, William H. Gravell, Richard Tunis.

Public Relations: Milton H. Blez, Chairman; Harold C. Rawley, Lewis J. Cohen, Otto H. Nieland, Armin Schotte.

Publications: Abraham C. Fisher, Chairman.

Reception (Sub-Committee Meetings): Charles W. Palmer, Chairman; L. Costello, Stanley R. Smith.

Badge (Sub-Committee Meetings): A. A. Townsend, Chairman; Harold C. Rawley.

OHIO

Report on Legislation

The official report of the Legislative Committee of the Ohio Society is presented herewith. While published in an anticipatory manner in the June issue, the signed report merits reproduction:

To the members of the Ohio Society of Professional Engineers:

The Legislative Committee of the Ohio Society of Professional Engineers is pleased to submit the following report of what has been accomplished during the regular session of the Ninety-first General Assembly, affecting the professional engineers.

Senate Bill No. 174 strengthens the original registration law and also provides that the State Board of Registration shall retain all the funds collected from registration fees and which shall be used exclusively for the benefit of the registered engineers. This bill passed both the House and the Senate with only one dissenting vote, and has recently been approved by the Governor. This bill becomes operative August 14, 1935.

House Bill No. 97 provides that all county surveyors shall in the future be designated and called "County Engineers" and the county engineer in the future shall be a registered professional engineer and surveyor. This bill was signed by the Governor today.

Senate Bill No. 58 was so designed as to exempt insurance companies from all provisions of the registration act. This bill would tend to weaken what was accomplished in the original registration act and through the fine efforts of our engineering group, was killed in the House Committee on Insurance after it had passed the Senate.

Senate Bill No. 134 provided for an alternative form of county government subject to the adoption by electors of any county. This bill was defeated in the House after the House had approved amendments which placed the rights of the county engineer on a par with the prosecuting attorney. It is our conviction that even though the bill was lost, the amendments offered by our group strengthened the favorable vote which the bill received.

It might be added here when Mr. Charles P. Taft, II, Chairman of the Governor's Commission on County Government, sponsors of S. B. No. 134, was presented with the suggested amendments as prepared by our legislative group, he was extremely fair with us and this should not be forgotten.

The most outstanding results of our activities other than our decided success with legislation, can be summed up by the statement that the engineers, through their united effort and their fine spirit of cooperation, have impressed not only the Legislature but others as well, as to their sincerity of purpose and the worthiness of their cause. Our task in the future should be somewhat easier, due to the excellent foundation we have laid by close organization work.

All the members of the Ninety-first General Assembly were in sympathy with our legislative program, but this report would not be complete unless we acknowledged the helpfulness of the following individuals:

Governor Martin L. Davey, Speaker of the House J. Freer Bittinger, President pro tem of the Senate Paul P. Yoder, Director of Highways John Jaster, Jr., Senators Edward N. Waldvogel, Willard Campbell, Robert A. Pollack, Bernard R. Donovan, and Representatives Richard Marlow, John T. Hewett and Bishop Kilpatrick. These individuals, and particularly Governor Davey, were outstanding in their efforts to help our group.

The Legislative Committee wishes to extend its sincere appreciation to the members for their fine spirit of cooperation which has made our success possible.

Officers, Trustees and Legislative Committee of the Ohio Society of Professional Engineers.
Ed. G. Cantwell, Chairman.

National Convention

The following communication from President Steinman to Chairman Ford speaks for itself. Cooperation with and aid to Mr. Ford are pledged from many quarters:

June 25, 1935.

Mr. Perry T. Ford,
1110 Wyandotte Bldg.,
Columbus, Ohio.
Dear Mr. Ford:

I believe it is time to start planning for our Convention to be held at Columbus on October 23rd to 25th. We want to spare no effort to make this first annual meeting of the National Society a pronounced success.

Accordingly, I am writing to ask you to take the chairmanship of the Convention Committee. Since the invitation to hold the Convention in Ohio originally came from you and since you are conveniently located at Columbus, I feel that you should take charge of all plans and arrangements. I am counting on you to get up a splendid program with a large attendance so that this Convention will be a memorable occasion.

You can count on the full co-operation of Arthur V. Sheridan, Willard S. Conlon and myself. I suggest that you keep in touch with all of us for exchange of ideas and suggestions. I would also suggest that you designate the Directors of the respective member state societies to serve on your committee. This will provide you with an effective contact man in each member state society. You may wish to subdivide your committee into sub-committees on program, attendance, resolutions, publicity, etc.

Last month we had a splendid Annual Meeting of the New York State Society at New York with a record-breaking attendance of approximately 600. Arthur Sheridan was chairman of the committee that planned this New York meeting, and I know that you can count on him for helpful contributions of ideas.

I have been telling various groups that we expect an attendance of over 2,000 at the Columbus meeting and I have to depend on you to help me make good on this prediction. I hope you can get 1,000 or 2,000 of the Ohio engineers to attend the meeting and in addition draw an attendance of 500 or 1,000 from other states. The program and the advance publicity should all be planned with that end in view. Mr. Conlon will assist you in circularizing all of the members of the National Society. In addition you should plan attractive advance announcements to be printed in The American Engineer in each issue between this month and the date of the Convention.

Since this convention is to be combined with the Annual Meeting of the National Council of State Boards, you should also keep in touch with Mr. Legaré in planning the program so as to provide for the desired joint sessions and to avoid any conflicts in the schedule. I believe it is the idea to make the banquet a joint occasion representing both the National Society and the National Council.

Faithfully yours,
D. B. Steinman.

Perry T. Ford Sends Interesting News Which Crossed the Request of President Steinman:

"The most outstanding results of our Activity in matters pertaining to legislation is evidenced by the fact that every legislator, from the Governor on down, is duly conscious that the engineers of Ohio are, for the first time in their existence, competently and thoroughly organized.

The writer has had the privilege and the pleasure of visiting every local society. These societies vary from forty-three to a potential maximum of seven hundred and thirty-five. We are now laying plans for a campaign for membership in the National Society of Professional Engineers.

I am submitting the above information with the hope that it might suggest itself to you as a means of approach to the various registered engineers and surveyors within your State. At a little later date, I am going to submit to you as a matter of record for you, the names of all the officers and committees in the various local societies.

It is inspiring to know, as I meet with them, what they contemplate doing. Inter-society bowling matches, golf games, etc., are contemplated. They are looking forward to the October meeting of the National Council of State Boards of Engineering Examiners which will be held in Columbus on October 23-24-25.

Elaborate arrangements will be made by the Ohio Society for the proper entertainment of all visiting engineers. I am particularly interested in having all the Membership Committee Chairmen be present at that meeting if at all possible.

Be assured of my full cooperation and assistance in any matters of interest to you in the matter of promoting new memberships or new societies to be coordinated with State and National Society.

With all good wishes, I am
Cordially and sincerely yours,
(Signed) Perry T. Ford, Chairman."

Engineering Practices

The Ohio Society reports on the recommendations of the "Committee for Standardization of Engineering Practices." The committee, at its meeting recently held in Columbus, adopted the following schedule of fees for engineering services to be submitted for consideration by committees in all zones and if satisfactory to be formally approved and adopted by each zone committee as well as various engineering organizations in each zone:

Fees for engineering services to be submitted for consideration by committees in all zones and if satisfactory to be formally approved and adopted by each zone committee as well as various engineering organizations in each zone.

Division A—Minimum Fees for Engineering Services

1. Scheduled fees shall cover complete engineering services including preliminary investigations, surveys and reports; complete detail plans, specifications, and detailed estimates of cost; general supervision of construction; preparation of monthly and final estimates for contractors payments; but do not include property, boundary or right-of-way surveys; inspection of construction; shop, mill, field or laboratory inspection of materials; cost of test borings and other subsurface explorations, or calculations of special assessments, which services shall be furnished by the client or, at the client's choice, may be provided by the engineer at actual cost. The engineer shall furnish resident supervision of the work including line and grade surveys, if required, at actual cost of payroll and field expenses.

N. B. The fees do not include the time or service of the engineer to prepare for or appear in litigation in behalf of the client.

2. Basic minimum engineering fees shall be used for bridges, buildings, power plants and electrical transmission, distribution and street lighting systems, sewerage and sewage treatment improvements, water works and water treatment improvements, waste disposal plants, dams and locks, and other similar improvements.

3. Paving, sidewalks, heavy grading and extensions of water lines for local service shall be subject to a reduction of one per cent from the basic engineering fees. These reduced basic engineering fees to include resident supervision, but not inspection for the various classes of work specified in this paragraph.

4.

Cost of construction	Basic minimum fee (%) ****
Less than $10,000	10.00 plus or per diem
$10,000-$25,000	8.50 plus or per diem
$25,000-$50,000	7.50 plus or per diem
$50,000-$100,000	7.00 plus or per diem
$100,000-$250,000	6.50 plus or per diem
$250,000-$500,000	6.00 plus or per diem
$500,000-$750,000	5.50 plus or per diem
$750,000-$1,000,000	5.25 plus or per diem
Over $1,000,000	5.00 plus or per diem

5. The distribution or "breakdown" of above schedule within the total percentage of costs or for lump sum shall be as follows (all in percentage of the scheduled fee).

(*) Preliminary investigations and reports.
(**) Detailed plans and specifications.
(***) General supervision.
(****) Basic minimum fees.

6.

	* %	** %	*** %	**** %
Less than $10,000	18	52	30	100
$10,000-$25,000	17	53	30	100
$25,000-$50,000	16	54	30	100
$50,000-$100,000	15	55	30	100
$100,000-$250,000	14	56	30	100
$250,000-$500,000	13	57	30	100
$500,000-$750,000	12	58	30	100
$750,000-$1,000,000	11	59	30	100
Over $1,000,000	10	60	30	100

7. The above schedule is understood to be minimum fees for normal conditions and may be increased for difficult or unusual conditions.

8. It is the recommendation of the committee that where non-Federal work is financed in whole or in part by the Federal Government, the schedule of fees herein above given shall be increased by one-half of one per cent of the cost of construction.

8a. Members of the committee will be interested in the schedule of fees for *Federal* and *Federal Aid* projects recommended by the American Society Civil Engineers Committee on Fees. See "Civil Engineering" May, 1935 issue, pages 316-317.

9. A proposal is under consideration by the committee (but not yet adopted) that basic scheduled fees may be reduced twenty-five per cent (25%) for services to architects or other engineers by mutual agreement or where reciprocal privileges are accorded.

10. Per diem fees.

(a) Fees may be based on a per diem rate where the nature of the service to be rendered by the engineer is such that a percentage fee is not adaptable or convenient such as consultation, court and other legal proceedings. The minimum per diem rate for the principal to be $50 per day with rates above this minimum commensurate with the importance of the case and the experience and the professional standing of the engineer.

(b) All services of assistants, draughtsmen and etc., to be paid for at actual payroll costs plus one hundred per cent (100%) for overhead, "readiness to serve," and profit plus "outside expense" at net cost.

(c) The term "outside expense" shall mean transportation and subsistence expenses incurred by the engineer or his assistants while traveling in discharge of duties connected with the work other than expenses between the engineer's office and/or the client's place of business or the job and is to include the net cost of incidental expenses such as telegrams, telephone toll charges, extra reproductions of prints or photos of drawings and other documents required for the proper execution of the services for the client.

(d) The details as to hours per day, court proceedings and etc., where not definitely specified or agreed upon to be governed by the American Society of Civil Engineers Manual of Engineering Practice No. 5 (latest revision).

11. Lump sum fees.

(a) Fixed lump sum fees shall not be less than those computed on a per diem or percentage rate and shall be governed by the American Society of Civil Engineers Manual of Engineering Practice No. 5 (latest revision).

Division B.—Survey Fees

Note: The following schedule of survey fees has not been adopted by the State Committee but is submitted as a standard for consideration and adoption after such modification as may seem desirable for each zone.

1. General statement.

Because of the dissimilarity of city surveys and the varying nature of the requirements of surveys, it is impossible to predict the amount of work a survey will require. Therefore, definite bids on survey work are to be discouraged; and no surveyor will knowingly compete with another on the basis of professional charges.

2. Theory of charges.

The general theory of charges for survey work shall be the total salary cost (in which the principals shall charge for all direct work done by them at not less than the prevailing rate for such work) plus 100%, plus "outside of office" expense.

3. Per diem rates.

The above theory of charges based upon the present rates of pay establishes in round numbers the following per diem charges for survey work:

Field work.

Each surveyor or party leader, minimum $20.00.

Each first assistant, minimum $10.00.

Each additional assistant, minimum $5.00.

Note: There shall be a minimum charge of 60% of the full day charge for a half day or less.

Office work.

Principals in court work, consultations, reports, $25 to $50.

Engineer, $16 to $20.

Assistants, $7 to $10.

Note: There shall be a minimum charge of 30% of the full day charge for a quarter day or less.

4. Minimum charges.

There shall be the following minimum charges maintained in the following classifications of work.

I. Residential surveys (All lands restricted, zoned, or used for residential purposes within an incorporated municipality).

1. For plain survey of a half acre or less with straight sides (plain survey being one that marks the property corners with stakes and furnishes a plat of survey but no other services, or one that locates on the plat of survey, the position of buildings in respect to property lines) minimum, $20.00.

2. For a survey of a half acre or less with one or more curved sides, minimum $25.00.

3. For additional adjacent parcels surveyed at the same time, there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

4. For parcels in excess of one-half acre, there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

5. For special markers, descriptions, special maps, drawings, building locations in addition to corner stakes, grades, etc., there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

II. Central or downtown business surveys (description of territory).

1. For plain surveys of one-half acre or less, minimum $100.00.

2. For plain survey in excess of one-half acre, there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

3. For special markers, descriptions, special maps, drawings, building locations in addition to corner stakes, grades, etc., there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

III. Local business surveys (surveys of all lands in territories used or zoned for business or industry but not in the "downtown" zone).

1. For plain survey of half-acre or less, minimum $35.00.

2. For plain survey in excess of one-half acre there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

3. For special markers, descriptions, special maps, drawings, building locations in addition to corner stakes, grades, etc., there shall be added a charge based upon the time involved in such extra work at the per diem rates as above.

IV. Farm surveys.

Per diem rates only.

V. Topographical surveys.

Per diem rates only.

VI. Sub-division.

1. Boundary and topographical surveys at per diem rates only.

2. General layout plan, minimum $2.00 per acre but not less than $25.00.

3. Lot line calculation in groups of 25 or more lots.

With curved lines, minimum $4.00 per lot.

Rectangular lines, minimum $1.50 per lot.

Irregular lots, minimum $2.00 per lot.

4. Lots staking in groups of 25 or more lots.

Curved lots, minimum $3.00 per lot.

Straight lots, minimum $2.00 per lot.

5. Mapping and drafting, $2.00 per hour.

Division C.—Registered Engineers and Surveyors Association of Montgomery County, Ohio, Proposed Schedule of Fees for Building Construction.

1. Scheduled fees are for complete engineering services including preliminary studies and estimates; complete working drawings in ink and complete specifications, from which contractors can prepare definite bids; checking of shop drawings; general supervision of construction. Scheduled fees *do not include*—surveys; soil explorations; shop drawings; resident inspection; mill, shop, or laboratory inspection.

2. Minimum fees apply to simple, heavy construction, involving many repetitions, and live loading of 150 pounds per square foot or more.

3. Maximum fees apply to light or complicate construction, including schools, churches and theatres, having few repetitions, and live loading of 75 pounds per square foot or less.

4. Cost of Work Covered by Engineering Specifications	New Building Construction % of cost	Per Ton Struct. Steel	Per Ton Reinf. Conc.	Remodeling % of cost
$0-$10,000	5 %-7 %	$4.00-$7.00	$25.00-$35.00	10%
$10,000-$50,000	4½%-6½%	3.50- 6.50	22.50- 32.50	10%
$50,000-$100,000	4 %-6 %	3.25- 6.00	20.00- 30.00	9%
$100,000-$500,000	3½%-5½%	2.80- 5.50	17.50- 27.50	8%
Over $500,000	3 %-5 %	2.50- 5.00	15.00- 25.00	6%

5. For partial engineering services, deduction shall be made in accordance with the following schedule:

Service Omitted	Portion of Fee Deducted
General supervision of construction	30%
Typing of specifications, blue-printing drawings, reception and tabulation of bids	10%
Checking shop drawings	10%
Tracing drawings	10%

Net fee if all of the above are omitted, 40% of scheduled fees.

6. Traveling and other authorized expenses to be added to the fees scheduled.

7. For work partially done and abandoned, charges to be made as for extra services.

8. Investigations, reports, consultations, extra services, etc., to be charged at per diem or hourly rates, as agreed upon or employee's wages plus 100 %.

(*To be concluded in next issue*)

N. Y. STATE ACTIVITIES

(*Continued from page* 14)

NEW YORK STATE LICENSES GRANTED IN JUNE, 1935

Those marked (*) were granted Land Surveyors' licenses.

*Campbell, Francis J., 1179 Parkwood Blvd., Schenectady, N. Y.

Chimes, Samuel, 2925 Matthews Ave., Bronx, N. Y.

Cini, Joseph, 1848 Holland Ave., Bronx, N. Y.

Ellington, Harold S., 1507 Stroh Bldg., Detroit, Mich.

Haughey, James L., 11214 199th St., Hollis, L. I.

Ivanoff, Victor A., 2652 Bainbridge Ave., Bronx, N. Y.

Kelly, Paul A., 278 Warburton Ave., Yonkers, N. Y.

Lasher, Herbert, 39 Clifford Road, Menands, N. Y.

Lauria, Vincent P., 88 Seaman Ave., New York, N. Y.

*Liberty, Russell J., 104 E. Main St., Fredonia, N. Y.

Marshall, Albert E., 139 Brewster Road, Scarsdale, N. Y.

O'Connell, Thomas A., 300 Cumberland Street, Brooklyn, N. Y.

Remsen, George M., 43 Jefferson Road, Scarsdale, N. Y.

LEGISLATION AFFECTING ENGINEERS

At the 1935 session of the New York State Legislature a number of items of interest to engineers received legislative approval. Two of these items have received the signature of the Governor and are now law. The said items are the following:

Chapter No. 304:

Creates a division of State Planning and a State Planning Council.

Chapter No. 746:

Requires engineers, inspectors, officers and other employees of division of highways, engineering and architecture to report to state industrial commissioner all violations of Labor Law articles relating to public works and grade crossing elimination coming to or brought to his attention.

Takes effect immediately.

Interested persons are advised to consult the Legislative Index for 1935.

ITEMS OF GENERAL INTEREST

APPRENTICESHIP PROTEST

(*Continued from page* 10)

D. B. Steinman, President of the National Society, offered the appended reply:

To the Editor of the New York Times:

In your issue of June 17, there appeared a letter taking exception to the requirements of the engineers' registration law in this state.

Engineers' registration laws, with similar qualification requirements have been enacted in 33 states since 1907. New York was added to the list in 1920, and similar legislation is now pending in 10 additional states. In all of this, engineering is following the precedent of law and medicine. These three learned professions are primarily entrusted with responsibilities affecting human life, human health, human rights and human property.

Engineers' registration is required for the protection of the public. The work of no other profession more truly concerns the safety of life, health and property. Bridges, buildings, dams, and other engineering works must be competently designed to assure both safety and efficiency. The public needs to be protected against the quack, the incompetent, the unscrupulous and the impostor, who do not belong in our profession but who nevertheless attempt to practice in its name. The inventor needs to be protected against "engineering" reports by the unqualified and the unscrupulous. The client needs to be protected against paying fees to quacks and incompetents who hold themselves out as "engineers." The courts need to be protected against the testimony of "experts" who pose as members of our profession. The general public needs to be protected against improper planning, inefficient design, wasteful execution, and excessive cost, also against dishonorable dealings. Mere structural adequacy is not the only desideratum.

It is for these reasons that the legislators of state after state have enacted laws regulating admission into the engineering profession. Under these statutes, it is unlawful for any person to practice engineering or to use the designation "engineer" unless he is a registered professional engineer. The requirements for registration include certification of moral character, completion of academic and professional education, four years of practical experience following graduation from an approved college of engineering, and the passing of prescribed written examinations. Licenses may be revoked upon evidence of fraud, deceit, negligence, incompetence, or improper conduct in professional practice.

The engineers' law differs from the laws governing most other professions in the requirement of a four years' apprenticeship (corresponding to an interneship for prospective physicians) following graduation from an engineering school. The amount of training required for the thoroughly competent practice of engineering even in a limited field cannot be adequately covered in the four or five years of collegiate professional education, and the theoretical knowledge must be supplemented and amplified by a number of years of practical experience in field and office under the guidance and supervision of more mature engineers. The engineering profession does not regard or accept a young man as a full-fledged engineer immediately upon graduation, and the law declares that the young graduate is not an engineer until he has had the supplementary practical experience and has secured admission to the profession. During this period of supplementary training, the young graduate is expected to work in the employ or under the supervision of professional engineers, but he may not do engineering work on his own responsibility nor engage in independent practice.

It is not the purpose of registration laws to reduce the number of engineers nor to discourage the choice of engineering as a profession by those who have the proper aptitudes. Recent declines in the enrolment of engineering students are due to economic conditions and have not been influenced in any way by the registration laws. On the contrary, the registration laws help the accredited engineering schools by requiring attendance and graduation where formerly thousands of young men thought they could enter the profession through the back-door without formal engineering education.

If the coming years will witness a decline in the number of prospective engineers, it will be a salutary development. It is to the public interest to reduce the overcrowding of professions, since such overcrowding tends to lower professional and ethical standards in the struggle for economic survival. If the boys in the high schools had a true picture of the prevailing undercompensation and the competitive oversupply of engineers, instead of the glowing enrolment propaganda of engineering educators selfishly motivated, only the most determined of these students would choose engineering as a career.

D. B. Steinman
President, National Society of Professional Engineers.

PROFESSIONAL RELATIONS

Chairman Gelineau Completes Committee

Victor Gelineau, of New Jersey, who recently took over the Chairmanship of the Professional Relations Committee, has assigned the personnel for the various sub-committees and in so doing has called for action.

Mr. Gelineau is to be commended for the manner in which he has tackled a job that was relinquished by a predecessor who had not been able to assume the duties of the office.

The general and sub-committees are as follows:

PROFESSIONAL RELATIONS COMMITTEE

Victor Gelineau, Chairman, 1 Exchange Place, Jersey City, N. J.

Prof. E. W. Saunders, University of Virginia, University, Va.

Mr. F. D. Weber, 401 Lumbermen's Bldg., Portland, Ore.

Mr. Homer G. Balcom, 10 E. 47th St., N. Y. C.

Prof. John C. Riedel, 505 Macon St., Brooklyn, N. Y.

Mr. J. H. Griffin, 250 Hudson St., N. Y. C.

Prof. L. F. Van Hagan, Univ. of Wisconsin, Madison, Wis.

Mr. H. D. Mendenhall, Box 403, Tallahassee, Fla.

Prof. C. C. Knipmeyer, 2611 N. 8th St., Terre Haute, Ind.

Mr. C. T. Olmsted, 1205 Griswold Bldg., Detroit, Mich.

Prof. C. L. Mann, State College Station, Raleigh, N. C.

Mr. L. A. Emerson, 1226 Sumter St., Columbia, S. C.

Prof. H. E. Babbitt, 204 Engineering Hall, Urbana, Ill.

Mr. Alfred Mullikin, Northeast Harbor, Me.

Mr. H. G. Sours, 209 S. High St., Akron, Ohio.

SUB-COMMITTEES

1. *Fees for Engineering Services*—Mr. L. A. Emerson, Chairman; Messrs. Alfred Mullikin, C. T. Olmsted, Homer G. Balcom.

2. *Salaries for Employed Engineers*—Prof. John C. Riedel, Chairman; Messrs. H. G. Sours, J. H. Griffin.

3. *Ethics and Professional Practice*—Prof. E. W. Saunders, Chairman; Messrs. Homer G. Balcom, C. T. Olmsted, C. C. Knipmeyer.

4. *Methods of Engaging Engineering Services*—Mr. Homer G. Balcom, Chairman; Messrs. H. D. Mendenhall, H. E. Babbitt.

5. *Engineering Education*—Prof. H. L. Babbitt, Chairman; Messrs. C. L. Mann, John C. Riedel, L. F. Van Hagan, H. D. Mendenhall, F. D. Weber, C. T. Olmsted, E. W. Saunders.

6. *Relations With Other Professions*—Prof. C. L. Mann, Chairman; Messrs. L. A. Emerson, C. T. Olmsted, L. F. Van Hagan.

7. *Relations With Other Organizations*—Mr. F. D. Weber, Chairman; Messrs. C. T. Olmsted, Alfred Mullikin, H. G. Sours.

8. *Relations With Engineering Assistants (Juniors)*—Mr. H. D. Mendenhall, Chairman; Messrs. J. H. Griffin, C. C. Knipmeyer, E. W. Saunders.

DEPARTMENT OF LABOR

Advises on Statistic Survey

July 1, 1935.

New York State Society
of Professional Engineers
New York, N. Y.
Dear Sir:

As you are aware, the Bureau of Labor Statistics has undertaken a comprehensive survey of the engineering profession. The mailing list was supplied to us through your cooperation. While the number of returns is most gratifying and the returns are in many cases accompanied by useful comments, it is evident that there is some misunderstanding as to the purpose of the survey in that the Bureau is specifically seeking the information to find positions for engineers.

Since this Bureau has no facilities for placing unemployed engineers, it is believed that much disappointment would be avoided if you can make arrangements to notify your members through your society journal that such is not the case.

It is the hope that the final report will contain information enough from which to formulate some program to deal with unemployment in the engineering profession. Meanwhile may we refer your members and other engineers to the placement bureau of your society and the United States Employment Service for information regarding employment prospects.

Yours very truly,
Isador Lubin
Commissioner of Labor Statistics

The Editor,
New York Herald Tribune,
New York, N. Y.

File No. L-344

Dear Sir,

In the New York Herald Sunday 23rd June, there is a very interesting aerial photo of the new Bourne Bridge over Cape Cod Canal, which was adjudged by the American Institute of Steel Construction as the "most beautiful" bridge built last year.

However, altho the Governors of Massachusetts and Rhode Island are named with the opening fete along with movie stars—not even the names of the chief engineer who designed the bridge nor the company who fabricated and erected it are mentioned—which hardly seems fair,—I wonder if you can kindly inform me of this important information which was omitted.

Expressing my thanks, I am,
Yours faithfully,
(J. C. Staveley Lawson)

A COMMON OCCURRENCE

Bridge Ceremony Includes All But Engineers

The appended correspondence is of interest in that it indicates the need for properly publicizing the engineer, who is so frequently deprived of his just recognition, either by an omission or by virtue of his relatively unimportant news value in the minds of newspaper men:

June 29th, 1935.

NEW YORK HERALD TRIBUNE
(*European Edition—The New York Herald*)

Mr. J. C. Staveley Lawson
154-50 Thirteenth Avenue,
Whitestone, N. Y.

Dear Mr. Lawson:

You are justified in your letter on the Bourne bridge. It is an error of omission we try to overcome in picture and news agencies. The engineers were noted in previous news stories as Fay, Spofford & Thorndyke, of Boston.

Sincerely yours,
Signed, Richard F. Crandell,
"Gravure Editor."

A Tribute to Conlon

The following editorial, from the Stamford Advocate, suggests the value of the services rendered by Secretary-Treasurer Conlon of the National Society.

PROFESSIONAL ENGINEERS

The profession of engineering has greatly widened its scope during the last few decades. Those who have had the training are going not only into civil engineering, construction engineering, mechanical engineering, but also into the supervision of health department, of public works, of efficiency activities, and kindred lines of work where the counsel and advice of experts are in increasing demand.

One of the interesting bills passed by the Connecticut Legislature in its recent session was one creating a board of examiners for engineers in this State. A somewhat similar bill, drawn up by Willard S. Conlon, Charles Rumpf, and E. Irvine Rudd, was introduced into the Legislature of two years ago, but it failed to pass. Apparently the Legislature, whose sessions have just come to an end, was in a more progressive mood for by its action on the bill referred to above Connecticut becomes the latest addition to the thirty-three states which now require engineers' registration laws.

It is felt that the cooperative attitude taken by the engineers will greatly benefit the public when people requiring the services of engineers may be assured that those who have passed the required examinations know their business. There is every reason why, if such professions as law and medicine are put under State supervision, the engineering profession should also be supervised by the State.

We note in this connection that Mr. Conlon, who was formerly city engineer here in Stamford, has become one of the national leaders in the engineering profession. He is not only president of the Connecticut Association of Engineers, but he is also secretary-treasurer of the National Society of Professional Engineers. He is receiving congratulations from his many friends in Stamford over his broader field of activities in Washington.

TITLE ENGINEER PROPOSED

(*Continued from page* 10)

National Society of Professional Engineering is the logical body to inaugurate this usage.

That the prefatory designation Engineer will be naturally and easily adopted is indicated by the fact that it has already been so used in newspaper headlines. I recently sent you a clipping from a Washington, D. C., newspaper, displaying such headlines.

I shall be glad if you can find space for this communication in the American Engineer in order that these thoughts may be brought before the entire membership. I am sending copies of this letter to Engineers Battin, Kelly, Conlon, Babbitt, Gelineau, and Ford, so that we may have the benefit of their comments and advice.

Faithfully yours,
D. B. Steinman.

DBS:M
CC-Engrs. Battin
Kelly
Conlon
Babbitt
Gelineau
Ford

WASHINGTON NOTES

(*Continued from page* 10)

no doubt further meetings will be called before the bill is reported by the Committee.

THE WORKS PROGRAM

The Division of Applications and Information

For Release in Afternoon Newspapers, of Monday, July 8, 1935

WATER RESOURCES SURVEY REQUESTED

NOTE—Filing of applications for allotment of funds in no way indicates that the proposed undertaking will be carried out. It must be construed only as a request for allotment of funds.

The Division of Applications and Information made public today a request by the Bureau of Mines, Department of the Interior, for an allotment of $1,619,100 to explore, measure and chart subterranean water resources over the country, especially in dust and drought-stricken regions, by electrical geophysical methods.

Underground water supplies are now badly needed in many parts of the United States, the Bureau explained in its application. In large regions, direct geological methods cannot be used successfully in locating structural conditions favorable to water occurrence, and various geophysical methods must therefore be employed. Geophysical work is being resorted to more and more in the solution of water and mineral resource problems in situations where ordinary geologic methods either cannot be used for lack of outcrops or where geologic evidence is insufficient to provide a basis for clear-cut and definite conclusions. In the geophysical study of the location, magnitude, and depth, of ground-water bodies, electrical methods are commonly used and are generally applicable, besides being relatively rapid and inexpensive in operation.

The Geophysical Section of the Bureau of Mines has had practical and successful experience in locating water-bearing gravel beds in the Humboldt Valley of Nevada and in other localities by the electrical methods. The general effectiveness of geophysical exploration has also been demonstrated by other agencies that have conducted geophysical surveys for locating water in Australia, parts of South Africa, and elsewhere.

The project is sponsored by the Water Resources Section of the National Resources Board.

THE WORKS PROGRAM

Works Progress Administration

For Immediate Release Friday, July 5, 1935.

140-*Hour Month Established for Persons Employed on Projects Under W.P.A.*

A maximum of eight hours in any one day and 70 hours in any semi-monthly period covered by pay roll checks is established for persons employed on projects of the Works Progress Administration, according to the terms of an administrative order signed by Harry L. Hopkins, Administrator, and made public today.

Both daily and semi-monthly hours of work may be exceeded, however, the order reveals, "in the case of an emergency involving the public welfare or the protection of the work already done on a project" and in exceptional and unusual circumstances where the limitations set forth in the order "are not feasible or practical."

The number of working hours per day with respect to any project or class of projects is to be determined by the Works Progress Administrator at the time of his approval of the project or class of projects, or in such other manner as he may designate.

The semi-monthly period is used as a basis for hours of work because this period, coinciding with pay rolls, lends itself to easier control than any other. Deductions will be made semi-monthly from the earnings of persons on a monthly earning basis for time lost because of voluntary absence, illness, completion or postponement of the project or permanent dismissal.

THE WORKS PROGRAM

The Division of Applications and Information

For Release in Morning Newspapers of Monday, July 8, 1935

ALLOTMENT APPLICATIONS IN ELEVEN STATES AND POSSESSIONS

NOTE—Filing of applications for allotment of funds in no way indicates that the proposed undertaking will be carried out. It must be construed only as a request for the allotment of funds.

The Division of Applications and Information made public today thirty-four requests for the allotment of funds totaling $5,917,773 in Alaska, Arkansas, California, District of Columbia, Illinois, Maine, New Hampshire, Pennsylvania, Rhode Island, Texas, Virginia, Washington and Wyoming.

Of these applications, twenty-three were from the Bureau of Yards and Docks, Navy Department, totaling $3,726,570. The Bureau of Fisheries, Commerce Department, presented five projects calling for $1,010,703, the National Park Service, Interior Department, five projects, $210,500, and the American Section, International Boundary Commission, United States and Canada, one project, $970,000.

The applications are as follows:

VARIOUS STATES

Department of Commerce:

(Bureau of Fisheries)

For completion of partially developed fish hatcheries, including construction of buildings, ponds, roads, and water supply and other fish culture facilities, $405,000.

(The proposed allotment is divided among these stations as follows: Lamar, Pa., $40,000; Berlin, N. H., $30,000; Yellowstone Park, Wyo., $25,000; Rochester, Ind., $35,000; Leetown, W. Va., $50,000; Natchitoches, La., $35,000; Reagan, Okla., $35,000; San Angelo, Tex., $55,000; Marion, Ala., $50,000; Walhalla, S. C., $25,000; Flintville, Tenn., $25,000.).

For repairs, reconditioning and enlargement of fish hatcheries and aquarium, and construction of additional fish cultural facilities, $359,800.

(The proposed allotment is divided among stations as follows: Washington, D. C., $4,300; Tehama on Mill Creek, Cal., $15,000; Anderson on Battle Creek, Cal., $12,000; Gloucester, Mass., $20,000; Woods Hole, Mass., $12,000; Hartsville, Mass., $6,000; Bozeman, Mont., $12,000; Ennis, Mont., $20,000; Miles City, Mont., $5,000; East Orland, Me., $12,000; Northville, Mich., $5,000; Cortland, N. Y., $5,000; Lake Mills, Wis., $15,000; Quilcene, Wash., $18,000; Birdsview, Wash., $15,000; Quinault, Wash., $10,000; Saratoga, Wyo., $12,000; Creede, Col., $5,000; Leadville, Col., $5,000; Dexter, N. M., $20,000; Paris, Idaho, on Bear Lake, Utah, $6,000; Springville, Utah, $7,500; Clackamas, Ore., $7,500; Butte Falls, Ore., $7,500; Nashua, N. H., $5,000; Pittsford, Vt., $5,000; Hagerman, Idaho, $10,000; Crawford, Neb., $7,500; Manchester, Iowa, $10,000; Neosho, Mo., $5,000; Speakfish, S. D., $5,000; White Sulphur Springs, W. Va., $4,000; Fort Belvoir, Va., $10,000; Wytheville, Va., $3,500; Lake Park, Ga., $17,500; Orangeburg, S. C., $7,500; Erwin, Tenn., $6,500; Warm Springs, Ga., $6,500.)

For construction of four new fish hatcheries, including construction of buildings, ponds, water supply, roads and general fish cultural facilities, $179,800.

(The requested allotment would be divided as follows: Glacier Park, Montana, $65,000; Santa Rosa, New Mexico, $25,000; Uvalde, Texas, $65,000; Pisgah National Forest, North Carolina, or Great Smoky Mountains Park, Tennessee, $20,000.)

ALASKA

For improvement of salmon spawning streams in southeastern and central Alaska; repairs to marine railway, improvement of salmon spawning grounds, and destruction of predatory enemies of salmon in Bristol Bay, $55,996.

ARKANSAS

Interior Department:

(National Park Service)

For study of the therapeutic properties and uses of Hot Springs National Park waters, and technical survey of sources of hot spring water and study of sources of heat, $160,000.

CALIFORNIA

Interior Department:

(National Park Service)

For a survey of Sequoia National Park big tree groves, $10,000.

These groves, for the preservation of which the park was created, are today largely known by estimates and approximations. There are many erroneous records and statements published about growth, reproduction, size, location, etc. Long span records are needed for trees which live thousands of years. This proposed project provides for mapping of the areas of the groves, a count of individual Big Trees, with brief form records showing diameter, exposure, condition, soil, a count of fallen trees, etc.

Navy Department:

(Yards and Docks)

EUREKA—For quarters building and accessories, for operators, at the Naval Radio Station, $18,000.

SAN DIEGO—For garage building and accessories at the Naval Training Station, $45,000.

For a garage at West Beach, Naval Air Station, $20,000.

For target repair facilities, including buildings and accessories at the Naval Fuel Depot, $12,000.

DISTRICT OF COLUMBIA

Navy Department:

(Yards and Docks)

For construction of separate sewer system at Navy Yard, $120,000.

For modernization of plumbing sanitation and ventilation at Navy Yard, $60,000.

For repairs and improvements to inside and outside electric circuit at the United States Naval Observatory, $570.

For ordinance storage building and accessories at the Navy Yard, $360,000.

For photographic laboratory and aerological observatory building at the Anacostia Naval Air Station, $90,000.

Interior Department:
(National Park Service)

To enlarge, color and frame photographs and also prepare and frame oil paintings of National Park scenes for use in Federal buildings and for exhibit, $15,000.

ILLINOIS
Navy Department:
(Yards and Docks)

NORTH CHICAGO—For renovation of buildings and accessories at Great Lakes Naval Hospital, $10,000.

MAINE
Navy Department:
(Yards and Docks)

KITTERY—For modernizing, inside lighting and power circuits at Portsmouth Navy Yard, $23,000.

NEW HAMPSHIRE
Navy Department:
(Yards and Docks)

PORTSMOUTH—For extension to No. 86 storage building at Portsmouth Navy Yard to replace temporary and scattered structures, $300,000.

PENNSYLVANIA
Navy Department:
(Yards and Docks)

PHILADELPHIA—For repair and improvement of piers No. 2, 3 and 5 at Navy Yard, $425,000.

For steel storage building and accessories at Navy Yard, $360,000.

RHODE ISLAND
Navy Department:
(Yards and Docks)

NEWPORT — For rebuilding ferry ships at Naval Torpedo Station, $80,000.

For extension of sea wall, and repair and improvement of waterfront structures at Naval Training Station, $75,000.

TEXAS
State Department:

(American Section, International Boundary Commission, United States and Mexico)

For construction of gravel and rock roadway surfaces on top of levees along the Rio Grande River in El Paso and Hudspeth Counties, Texas, for a distance of 88 miles, $970,000.

(The levee is a part of the Rio Grande rectification project provided for in a convention between the United States and Mexico concluded on February 1, 1933. It extends downstream from El Paso to the mouth of Quitman Canyon. Up to July 1, about 25 miles had been completed, and work is continuing at the rate of more than two miles a month.

The application states that the construction of a road on the levee will facilitate the perpetual maintenance of the embankment, assist the operations of the United States Customs, Immigration and Border Patrolman and all other law enforcement agencies, and provide a means of communication for the populous urban and suburban settlements in the El Paso Valley. The War Department has approved the project.)

VIRGINIA
Navy Department:
(Yards and Docks)

NORFOLK—For general maintenance shop building and accessories at Naval Operating Base, $180,000.

For construction of receiving station, barracks building and accessories at Naval Operating Base, $600,000.

For reconstruction of surface drainage systems at Naval Operating Base, $108,000.

PORTSMOUTH — For modernization of plumbing sanitation and ventilation at Norfolk Navy Yard, $60,000.

QUANTICO—For aircraft storage building and accessories at Marine Corps Flying Field, $210,000.

For administration building and accessories at Marine Corps Flying Field, $102,000.

WASHINGTON
Navy Department:
(Yards and Docks)

SEATTLE—For hangar building and accessories at Naval Air Station, $468,000.

Interior Department:
(National Park Service)

For surveys to prepare plans for the proper development and administration of Mt. Olympus National Monument, $12,500.

Department of Commerce:
(Bureau of Fisheries)

SEATTLE—For reconditioning and repairing Alaska patrol vessels and Pribilof Islands tender, $10,107.

WYOMING
Interior Department:
(National Park Service)

For forest nursery and type mapping in Yellowstone National Park, $13,000.

The first part of the project is to maintain a forest nursery used to grow native species of forest trees for use in reforesting areas made barren by mountain-pine beetle infestations. The second part is to survey and locate on a map the types of timber and other vegetation in order to determine the best fire-control plan, the source of insect attacks, and means of controlling infestations.

WHY E.C.P.D.?

(*Continued from page 5*)

the judiciary, public agencies and the professional engineer of New York, and of all other States which have definite criteria of education and practice and which certify professional qualifications of engineers, are offered a gratuitous insult by a group which professes to speak with finality.

The said release contains statements which, if made with reference to the legal or medical professions, would merit consideration by a Grand Jury. It is obvious that the authors have either a superficial appreciation of, or a contempt for, law. What the statutes of the State of New York decree and what its courts, officials, departments and public agencies recognize and invoke, this self-constituted group presumes to discredit, and by inference discount under the cloak of promoting professional standards. The first requisite of professional qualification is character, and disrespect for law is prima facie evidence of unfitness.

The authors of the release evidence an unpardonable ignorance of qualification for the objectives they profess. They either do not know or do not heed the fact that thirty-three of the forty-eight states have legally determined in a greater or lesser degree the professional status of the engineer. Regardless of the views of E.C.P.D. the State of New York definitely describes and qualifies a professional engineer. It restricts the practice of engineering to certain persons who have been examined and duly certified. So do many other states. The intimation that chaos exists in New York and other states is a misstatement that calls for retraction or official consideration. The American Engineer challenges the statement that the situation is chaotic from any point of view in New York, and asks for proof that may be submitted to the authorities. The present requirements for admission to the practice of engineering are greater than for law or medicine. The minimum age for entrance to the profession is higher than in those professions. If chaos exists it is in the minds of those who make statements that discredit themselves.

What is E.C.P.D. and what are its purposes. Listed as members are the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, the American Institute of Mining and Metallurgical Engineers, the American Institute of Chemical Engineers, the Society for the Promotion of Engineering Education, and the National Council of State Boards of Engineering Examiners. Of these only the National Council of State Boards has any definite professional status. The American Society of Civil Engineers favors registration, the American Institute of Mining and Metallurgical Engineers opposes it, the Society for the Promotion of Engineering Education fears it, and the rest, regardless of the sentiments of their members, are so controlled as to prevent an expression of opinion. Aside from the National Council of State Boards none of the member bodies is so constituted as to foster public and professional objectives and, as a matter of public policy, the National Council does not belong in any organization wherein it participates on a basis of parity with non-official bodies. It should retain a position superior to any non-governmental agency. Conferences with organizations are within the scope of propriety. Membership in them is not.

The objectives of E.C.P.D. are summarized as follows:

The general objective of E.C.P.D. is the enhancement of the professional status of the engineer. To this end it aims to coordinate and promote efforts and aspirations directed toward higher professional standards of education and practice, greater solidarity of the profession, and greater effectiveness in dealing with technical, social and economic problems.

An immediate objective, now apparently practicable of attainment, is the development of a system whereby the progress of the young engineer toward professional standing can be recognized by the public, by the profession, and by the man himself, through the development of technical and other qualifications which will enable him to meet minimum professional standards. Note: Legal recognition and control are not included.

Despite the fact that such objectives should have been the concern of the so-called founder societies for more than a generation, no attempt to foster them came into being until the strictly professional society made its appearance in several states. The success and effectiveness of the professional movement, which to-day has a complete county, state and national set-up, evidently caused alarm to those who feared the eclipse of the national societies of this and that specialty of what is one profession. Prompted more by apprehension than concern for public or professional welfare the founder societies launched the conglomerate group labelled E.C.P.D.

Is there any need or justification for E.C.P.D.? If so, what is it? Does it advocate registration? If it does, why not support the successful endeavors of the professional bodies who brought about and are still effecting laws in states throughout the country? If it is opposed, and only one of the founder societies has ever expressed approval of licensing, the organization should be honest enough to declare itself. Sooner or later its position will be challenged and a few more press releases and statements, such as that of June 10th, will hasten the time. In the judgment of many that time is now.

The belated efforts of the so-called founder engineering societies, to concern themselves with social and professional problems, are finding outlets in directions and in methods that re-act with little credit to the authors and which, if persisted in, promise to destroy whatever prestige and opportunity that might be left to their custody.

E.C.P.D. is improperly constituted to undertake the task of fostering professional objectives. A heterogeneous organization, with no premises to which its members can unanimously subscribe, it can only serve to interfere with the program of the National Society. Its advocates ignore the basic rules of common sense. How can an organization which opposes legal recognition as a profession (the only recognition which is of consequence) promote professional objectives? How can any organization, which so little understands or appreciates the humanities that it countenances statements that ignore the existence of statutes which establish the status of engineers in nearly two-thirds of the states of the Union, presume to speak for the profession? Will any engineer, recognized as a professional man by the law of the state, by public agencies and by courts, allow a group containing member societies which avowedly oppose such recognition, to speak for or represent him?

Where and how does any organization presume to set itself up as superior to the law of a sovereign state. Does not E.C.P.D. realize that it can never have any official standing. The purpose of licensing is the protection of life, health and property, and the administration of the same falls within the police powers of a state. Licensing is not a whim or prerogative of a profession. It is a measure of public safety and the opinions of self-constituted authorities are of no consequence, except insofar as they can influence the legislature of a state. Any person familiar with the affairs of government knows that legislators resent influences and advices from without the state. Acts regulating the practices of law and medicine differ in every state despite the desire for uniformity. So will engineering statutes. The hope of engineering lies in harmonizing the efforts of state societies of practising professional engineers, not in attempting to reconcile the view of national mechanical, electrical, chemical and mining engineers or educators who, in some instances, have had the temerity to tell Registration Boards what their examinations should consist of. Those who would aspire to professional recognition should first qualify as good citizens reasonably familiar with the government under which they seek such recognition.

The recent release, wherein E.C.P.D. attempts to paint a condition of chaos, would be amusing if it were not for the fact that listed amongst the members of the E.C.P.D. is the National Council of State Boards of Engineering Examiners and specifically mentioned in the release is the name of Dr. D. B. Steinman, President of the National Society of Professional Engineers. It is difficult to believe that the National Council, which has a definite status and justification, born of official administration of professional laws, would countenance the issuance of such statements as E.C.P.D. sends forth. As for Dr. Steinman, there is no doubt but that the use of his name in connection with the release was unauthorized. No man in this country has contributed more to the establishment of engineering as a profession, and the clumsy attempt to identify him with the release cannot be construed as anything but an effort to legitimize the E.C.P.D. Dr. Steinman, not alone as an engineer, but as a citizen, would not lend himself to a campaign which seeks to belittle the law of a commonwealth.

The National Council of State Boards of Engineering Examiners is placed in a most embarrassing position because of its affiliation with the E.C.P.D. The National Council, composed of the various State Registration Boards is a conference of engineers representing not the profession, but the people of the several states wherein they are officials chosen in accordance with the provisions of law. The State Board alone is empowered to pass upon the legal status and qualifications of engineers. Any attempt, upon the part of a society or group of societies to usurp, qualify, modify or negate authority delegated by law to a duly constituted body is a disrespect of government and merits consideration by the agencies concerned with the same.

The participation of the National Council on a parity or voting basis is open to question. The state members of the Council cannot be bound or even influenced by E.C.P.D. The State Board derives its authority from the people of the State. Its duty is to qualify in accordance with the law of the State. It is the servant of the commonwealth and not the director. The opinion of the E.C.P.D. should have no weight with the state members of the Council. If the latter group desires changes in statutes it should effect them through legislation.

The National Council should continue as a separate entity. It should be and is one of the most valuable agencies in the country. It should be superior to voting membership affiliation with any unofficial body.

As for E.C.P.D., it can only serve a temporary purpose in gathering data. Beyond that it has no cause for existence and will die a natural death. Its recorded purposes can better be accomplished by the National Society of Professional Engineers which is so organized as to effect such objectives and which recognizes that the professional society must be subservient to the common welfare, not above it. With the National Council to represent the public agency, and the National Society the professional engineer, there is neither room nor justification for E.C.P.D. The founder societies should stick to their technical and scientific knitting and leave social and professional matters to those organizations conceived for and experienced in such fields. Failure to do so can only result in impeding successful endeavors and ultimate loss of members to those societies.

Amongst the many expressions of opinion which have been forwarded to the National Society is one from a prominent engineer in a highly specialized branch of the profession, which most aptly and impartially states the case:

"Engineers Council for Professional Development

In this letter I am expressing some opinions regarding E.C.P.D. which you must consider as only my personal viewpoint and not that of any organization or committee with which I am connected.

Taking the matter of E.C.P.D. in its entirety, I am very much afraid we are building up another bureaucracy, which will become increasingly expensive as the years pass, and which will to a large extent take over activities which can better be handled by other existing organizations. I believe that with the progress of engineering licensing, as far as the public is concerned, the recognition of engineers will be on the basis of laws passed by the several states. Such being the case, if engineers are to act as a unitary professional body, it will have far greater legal force and effect if they act through the National Society of Professional Engineers in national matters and the several state societies in local matters.

The E.C.P.D. method is in comparison cumbersome and indirect and in the last analysis, serves no purpose which other organizations could not do better and with more authority. The make-up of E.C.P.D. is too inclusive of educators. These have not the same angle as the actual practising engineers, who make up the vast majority of the profession. In this respect, I feel that E.C.P.D. is not as representative as it should be.

The E.C.P.D. has four major activities at present.

STUDENT SELECTION AND GUIDANCE. *As would be expected, the work along this line appears to me to be to induce students to enter engineering. Our educators desire large enrollments. To the profession at large, this is not so desirable and rather sooner than later, we will have to take steps, as has the medical profession, to limit the entrants to the number the profession can reasonably absorb. The E.C.P.D. as at present constituted, is not likely to do this and it could be more effectively handled by the National Society of Professional Engineers.*

CERTIFICATION OF ENGINEERING SCHOOLS. *This activity is, I believe, more suited to the national societies than any other body. A college may have a good civil engineering course but a very poor one in electrical or chemical engineering. The national societies each approving the curricula for the branch of the profession they represent can be more*

selective and obtain better balanced results.

POST COLLEGE EDUCATION. *This matter is, I believe, one for the local state societies of professional engineers and their chapters. Such objects are best accomplished by the local meetings and the close contacts thus made possible.*

CERTIFICATION INTO THE PROFESSION. *This should be primarily a matter of legal licenses. With license laws in practically all states and with the certification of the Association of State Examining Boards, the program of E.C.P.D. seems useless duplication.*

It appears, in short, that most of the activities of E.C.P.D. belong logically to the National Society of Professional Engineers and this body can be really effective in taking over some of the activities and encouraging others in the state and local organizations where they really belong."

Ed.—The American Engineer appreciates the sincere endeavors and purposes of many individuals identified with E.C.P.D. but believes that they are being placed in an unfavorable light by the actions and expressions of controlling influences. The above commentary is intended not as a criticism of individuals but of misdirected endeavors.

RELIEF WORK REGULATIONS

(*Continued from page 7*)

by the Federal Government—making a loan or grant or both.

Section 6. *Sponsors of Projects*—A "sponsor" of a Works Progress Administration project is an authorized governmental agency (State, county, city, village, township, etc.) which offers a definite plan and procedure for the employment of persons on relief under the conditions of the Act. A State, district, or local Works Progress Administration may, on its own initiative, sponsor works projects, where such action is not contrary to law.

Unofficial groups may not act as sponsors. Projects may not be sponsored by boards of trade, clubs, societies, churches, orphanages, veterans' organizations, or other private, sectarian, civic or similar organizations. Such organizations may, however, cooperate unofficially with sponsors in the origination of proper proposals.

A project cannot properly be sponsored by a governmental agency if the work involved in, and required to complete, the project cannot lawfully be done by that governmental agency.

Section 7. *Planning of Projects*—Projects must be planned with relation to the number, age, sex, and occupational characteristics of persons on relief within the locality where the proposed project would be executed. Projects should also be so planned that continuous work may be available for such persons. This will require coordination by the Works Progress Administration of all projects authorized and conducted under the Emergency Relief Appropriation Act of 1935.

Projects may include work relief projects previously submitted to Emergency Relief Administration, and upon which work has not been started. One intention of this circular is to stimulate the preparation of plans for new projects which will meet the requirements of the new Works Program.

A project may cover more than one particular job, but all jobs included should be under the jurisdiction of the same sponsor, all of the same type, and, where sponsor's jurisdiction covers a large area, all in the same general location.

In formulating projects each governmental agency should confer with the local office of the Works Progress Administration (the local Emergency Relief Administration until such Works Progress Administration offices are established) for information concerning the number and occupations of persons on relief rolls who are to be put to work.

Governmental agencies should utilize the facilities of local and State planning boards in the formulation of projects.

Section 8. *Character of Work*—The work involved in any project must be of such character and be conducted in such places, and by such methods and devices, as will meet the legal requirements concerning the expenditures of public funds.

No work project will be approved covering work for which local funds are currently appropriated, or work generally included in the normal governmental operations of sponsoring agencies (but not including expansion of physical facilities), or which would result in the displacement of regular employees of such agencies.

Section 9. *Contribution*—The sponsoring governmental agency is expected to contribute equipment, materials and services to the maximum amount possible. The priority of the project will depend in part on the amount of such contributions and the extent to which they increase the proportion of labor cost to the total Federal funds required for the project.

Section 10. *Offices of the Works Progress Administration*—The Federal Works Progress Administration is establishing State, district and local offices to carry out the responsibilities placed upon it by the President.

All questions relating to problems within the jurisdiction of the Works Progress Administration, as provided in the Executive order of May 6, 1935, should be directed to the appropriate office of the Works Progress Administration. Inquiries concerning procedure should be directed to the local or district offices of the Works Progress Administration (or Emergency Relief Administration if the former have not been established) in the areas in which it is intended to operate the projects. Do not inquire directly of the State Works Progress Administration concerning any projects except those of State-wide nature. In no case should a project proposal be submitted direct to Washington; the Washington office will simply refer the proposal back to the local, or district Works Progress Administration, with consequent delay.

Section 11. *The Project Proposal*—Governmental agencies desiring to formulate Works Progress Administration Projects should prepare their request in conformance with the Project Proposal, W.P.A. Form 301.—The attached copy of that form is tentative, and is furnished solely for guidance in preliminary planning for projects which will meet the requirements of the program. However, projects prepared in accordance with this tentative proposal form and the instructions in this circular can be readily adjusted to fit the procedures finally prescribed by the Works Progress Administration.

The Works Progress Administration will, from time to time, formulate working procedures for approved types of projects. The final project proposals shall be accompanied by a proposed working procedure or reference to an established working procedure where one has been issued. A proposed working procedure should describe briefly a typical project, indicate sponsor, plant and equipment needed, product, program or schedule, and merit of the proposed work.

Section 12. *Preparation of the Project Proposal*—Except for the space indicated at top of the first page, the Project Proposal W.P.A. Form 301, is to be completely filled in by the sponsor. All questions will be answered in detail and all analysis and schedules made out in full.

Item 1. *Request*—Proper name of local Works Progress Administration and number of district may be obtained from the local Works Progress Administration. City, town or village should be that of post office or sponsor.

Item 2. *Location*—City, town, or village may be interpreted as including townships, crossroads, or any other definite location.

Item 3. *Description*—Give a brief but concise description of the work proposed and the exact location of the project, as for example, in the case of sewer or water main construction, indicate general features of the proposed work as to size of pipes or mains, length of street or area location. Reference must be made to the working procedure with which the project is identified, as in last paragraph of Section 11, above.

Item 4. *Summary of Costs*—This is to be made up from the detailed analysis on page 3 and 4. Percentages should be based on the total at the foot of each column opposite "Total Cost of Project."

Item 5. Estimated man-month will come from the total at the foot of column 4 of Item 23.

Man-year will be 1/12 of this figure.

Item 7. *Estimated Monthly Average of Persons*—Figures from 1 to 12 represent the months of operation of the project beginning with the first month during which it is in progress. Estimated monthly average number of persons to be employed daily on projects will be the trials under corresponding months in time 27, page 5.

Item 8. *Referal to Planning Agency*—City, county and state planning agencies shall be consulted on all projects which affects plans and program under the jurisdiction of such agencies. In all cases the proposed project shall be submitted to the planning agency and its recommendation secured and entered under this time.

Item 9. *Recommendations of Other Agencies*—Some projects will fall under the partial or technical jurisdiction of other agencies, as for example, a sewage disposal project which should be reviewed by the State Department of Health. In all appropriate cases projects should be submitted to such agencies and their recommendations secured and entered under this item.

Item 12. *Operation of Project Under Previous Program*—The space for "Percent complete" calls for an estimate of the percentage of completion of the project an end of the program referred to, or in the case of a program still in prog-

ress the percentage of completion at date of this proposal.

Item 15. *By Whom Superintended*—Give the name and title of the person representing sponsor who will be directly in charge of the operation of the project.

Item 23. *Labor Analysis*—COLUMN 1. Occupational types needed—In this column will be listed all occupational types required for the prosecution of the subject. They should be placed under the proper headings, depending upon the degree of skill involved or upon the nature of the work, according to the suggested classification of skills (sec. 15). At the bottom of this column, under the subtitle of "Superintendent," list only superintendents, foreman, and other persons required in its superintendence, and who are directly chargeable to this project. To facilitate entries in cost columns, separate lines should be used for labor which will be paid from funds furnished by sponsor and labor which will be paid from funds requested of the Works Program Administration.

COLUMN 2, 3, and 4 indicate the number of non-residents for each classification. This figure should agree with the one obtained by multiplying the average number of workers by the number of months they will be needed. For estimating purposes a man-month may, for the present, be considered to consist of 130 hours of employment.

COLUMN 5 indicates the monthly earnings rate for each classification. These rates, except for superintendance, and employees furnished by the sponsor, must agree with the executive order by the President, dated May 20, 1935. For estimating purposes hourly rate should, for the present, be computed on the basis of 130 hours employment per month for each person employed. See section 14 for the schedule of monthly earnings, by regions, population of locality, and classes of work.

COLUMNS 6, 7 and 8 provide for the amounts of money required for each classification. In column 6 enter all amounts which are to be financed from Federal funds. In column 7 enter all amounts to be financed by the sponsor and in column 8, the total amount for each classification. Use additional sheets if needed to list all the occupations required.

Item 24. *Equipment Analysis*—COLUMN 1. List all major equipment, such as teams, trucks, powder shovels, mixers, sewing machines, etc. which will be required for the prosecution of the project. Do not include small tools or sundry equipment, as these are to be carried on a separate application for a tool and sundry equipment project. Special tools furnished by sponsor may be listed, as for example, acetylene torch outfits, etc. Use separate lines for equipment, etc., furnished by sponsor and equipment requested by the Works Administration Program.

COLUMN 2. Indicate the capacity, size, rating, etc.

COLUMN 3. The number of units or pieces of equipment required.

COLUMN 4. Rental rates per unit will be shown by the hour, day or week, etc., as indicated in column 5.

COLUMN 5. Enter here the rental basis, whether by the hour, day or week.

COLUMN 6. Period of rental means the anticipated number of hours, days or weeks (which ever is used for rental basis, col. 5) the equipment listed is to be used.

COLUMNS 8, 9 and 10. Each total in column 10 will be the product of the number of units (col. 3) by the rate per unit (col. 4), and by the period of rental (col. 6). If additional space is needed, use additional sheets.

Item 25. *Materials Analysis*—All materials and supplies to be directly on this project should be shown here in sufficient detail to identify them accurately. All projects should contemplate the use of safeguards and ample facilities for the safety and health of employees and the general public. Scaffolding, machinery guards, shoring, etc., should be included in the cost estimates of materials, if needed. Other facilities and supplies required (for example, first-aid kits, goggles, drinking water containers, etc., should be included).

Separate lines should be used for materials furnished by sponsor and materials requested of the Works Progress Administration.

Item 26. *Other Direct Costs*—Includes here all other items of cost which are directly chargeable to the project. They should be described accurately by separate classes such as right-of-way travel, or rental of space required to conduct the project. Federal funds will not be available for the purchase of land. No land already owned by the sponsor may be listed as a contribution. Use separate lines for the items to be furnished by sponsor and the items requested of the Works Progress Administration.

Item 27. *Work Schedule*—This table is to be filled in to show the average number of workers which will be employed each month from the first month of operation of the project to its completion, listed by types of workers, as indicated in the table. The totals in the right-hand column should agree with similar totals drawn from column 4, item 23, page 3.

Item 28. *Estimate of Cost by Items of Work*—A separate estimate of cost will be made for each distinct operation of feature of work of the entire project. In the case of construction work, for example, the table is filled out in the same manner as a contract bid sheet showing quantity, unit, item, unit price, and cost. The estimate must be for the entire project and not only for the portion to be financed by Federal funds. Correspondingly, the total must show entire cost, including sponsor's contribution and Federal funds, and must equal the cost of project shown under column 4, item 4, page 1.

Section 13. *Analysis of Project for Tentative Eligibility*—If detailed estimates with working plans and specifications are available they should be utilized in making the preliminary analysis of the project. Where plans have not reached this stage, projects should be estimated as accurately as possible, consistent with a reasonable expense in making such estimates, before proceeding with detailed specifications. These preliminary estimates may be used on costs of similar projects or on standard procedure of architects, engineers and contractors in making preliminary estimates where complete drawings and specifications have not yet been prepared. From such a preliminary estimate, using the project proposal form, an analysis can readily be made to determine the tentative eligibility of the project as contemplated in the Emergency Relief Appropriation Act. It is necessary:

1. That the labor cost from Federal funds (item 4, col. 2, subtotal (2) plus (b) represent a major portion of the total Federal funds required (item 4, col. 2, total cost of project).

2. That the Federal expenditure per man-month (item 6) be kept low so that employment can be given to as many persons as possible.

3. That workers from relief rolls constitute at least 90 percent of the total number of persons working on the project. This should be tentatively determined by consulting Emergency Relief Administration officials in the locality. If this analysis of the project shows that it fails to meet these conditions, the sponsor should confer with the local Works Progress Administration, which may assist by suggesting changes of design, specifications, etc. This preliminary analysis of any project will assist in determining its suitability for more detailed presentation. The studies made on this basis will be directly applicable to the formal presentation of projects and

SCHEDULE OF MONTHLY EARNINGS

Counties in which the 1930 population of the largest municipality was	Region I	Region II	Region III	Region IV
Unskilled work	$55	$45	$35	$30
Over Intermediate work	65	58	52	49
100,000 Skilled work	85	72	68	68
Professional and technical work	94	79	75	75
50,000 Unskilled work	52	42	33	27
to Intermediate work	60	54	48	43
100,000 Skilled work	75	66	62	58
Professional and technical work	83	73	68	64
25,000 Unskilled work	48	40	20	25
to Intermediate work	55	50	43	38
50,000 Skilled work	70	60	56	50
Professional and technical work	77	66	62	55
5,000 Unskilled work	44	35	24	22
to Intermediate work	50	44	36	32
25,000 Skilled work	63	52	48	42
Professional and technical work	69	57	53	46
Unskilled work	40	32	21	19
Under intermediate work	45	38	30	27
5,000 Skilled work	55	44	38	35
Professional and technical work	61	48	42	39

will save such time on a detailed later study.

Section 14. *Schedule of Monthly Earnings*—The Executive order of May 20, 1935, issued by the President, "Prescribing Rules and Regulations Relating to Wages, Hours of Work, and Conditions of Employment under the Emergency Relief Appropriation Act of 1935," (1) established the earnings of workers on projects finished in whole or in part from funds appropriated by the Emergency Relief Appropriation Act of 1935, according to various regions, degree of urbanization, and classes of work; (2) prescribed the hours of work; and (3) prescribed conditions of employment.

The table on previous page shows the established rates of earnings for use in preparing project estimates:

Regions include the following States:

I. Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

II. Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota, Delaware, District of Columbia, Maryland, West Virginia.

III. Arkansas, Kentucky, Louisiana, Oklahoma, Texas, Virginia.

IV. Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee.

Section 15. *Suggested Classification of Skills.* For purposes of estimating labor costs for the project, the following classification of skills is suggested:

UNSKILLED WORK. Unskilled manual work includes operations of a simple routine nature which require little or no formal education or previous training or experience. Such work may require a good physique but does not expose the individual to any unusual hazard requiring special physical fitness or ability. The use of simple hand tools as equipment may be involved in unskilled work. Unskilled work is usually performed under close supervision.

Unskilled non-manual work includes routine office operations for which no special or previous training and experience are necessary.

EXAMPLES: Manual work: Building and construction laborers, charwomen, janitors, caretakers.

Non-manual work: Messengers, errand boys, office boys, bundlers, wrappers.

INTERMEDIATE WORK. Intermediate manual work calls for a limited degree of skill and experience sufficient to enable the individual efficiently with his duties after a short breaking-in period. Such work may require an ability to use simple hand tools or operate power-driven tools, machines or equipment on repetitive operations. This grade of work also includes apprentices and helpers to the skilled manual occupations and work of a simple routine nature which is performed under hazardous conditions of employment.

Intermediate non-manual work calls for certain minimum formal education requirements, and some specific previous training. It includes the operation of repetitive office machines and other types of routine clerical work.

EXAMPLES: Manual work: Blacksmiths' helpers, machinists' helpers, truck drivers, caisson workers.

Non-manual work: Calculating machine operators, typists, stenographers.

SKILLED WORK: Skilled manual work requires considerable training and/or experience in performance, with a minimum of supervision. This grade of work includes that normally performed by journeymen mechanics who have served a standard apprenticeship and who can perform all the more important operations of their trades without special instruction or detailed supervision. Most work for which employees must be licensed by municipal, State, or Federal authority shall be considered skilled work as well as work for which employees are directly responsible and which is subject to inspection by authorized building and construction inspectors. Work which exposes employees to an unusual degree, of physical hazard shall be considered skilled work. Skilled work involves the use of complex tools and equipment, judgment in the use of materials, and accuracy in performance of the work.

Skilled non-manual work requires considerable training and/or experience in addition to minimum formal educational requirements. Assistance to professional and technical persons and clerical work involving the assumption of responsibilities with a minimum of supervision are included in skilled work.

EXAMPLES: Manual work: Carpenters, bricklayers, machinists, electricians, structural iron workers, printers, blasters on heavy engineering construction work.

Non-manual work: Laboratory technicians, secretaries, bookkeepers.

PROFESSIONAL AND TECHNICAL WORK: Professional and technical work requires recognized professional or technical training in a specialized field of employment. It includes professional, scientific, and technical types of employment as well as work in the recognized fields of art.

EXAMPLES: Expert accountants, actors, librarians, chemists, architects, physicians and surgeons, statisticians, engineers, (Civil, Mechanical, etc.)

Section 16. *Application of Schedule of Earnings*—The Executive Order referred to under section 14 also provides that the monthly earnings are in the nature of a salary, and workers are to be paid for time lost due to weather conditions or temporary interruptions beyond the control of the worker. Deductions will be made for time lost because of voluntary absence, illness, completion or postponement of a project, or dismissal. The rates of earnings applicable to a city should apply to contiguous urban areas, even though they are not in the same county. Rates applicable in the largest city should in general apply throughout the county except as local circumstances warrant different rates. Adjustments may be made only by Works Progress Administrator (at Washington, D. C.) or his representative.

The rates of earnings are to apply on all projects financed in whole or in part from the Emergency Relief Appropriation Act, except in the following cases of employees, which are governed by existing regulations:

(a) Emergency Conservation work;

(b) Projects under the supervision of the Public Works Administration (PWA);

(c) Highways and grade crossing elimination work under the supervision of the Bureau of Public Roads and the State Highway Departments;

(d) Permanent United States Government Buildings;

(e) Such projects as may be exempted by the Works Progress Administration;

(f) Supervisory and administrative employees;

(g) Work-relief projects under the supervision of the State and local emergency relief administrations, until such projects are transferred to the new program.

Section 17. *Hours of Work*—The Executive Order of May 20, 1935 provides that, except in an emergency involving the public welfare or protection of the work already done, or in special cases where the circumstances prevent, or for administrative or supervisory employees, the maximum hours of work shall be:

(a) Employees under the "Schedule of Monthly Earnings," not over 8 hours a day to 40 hours a week, to be determined by the Works Progress Administrator;

(b) On projects supervised by the Public Works Administration, by the Bureau of Public Roads and State Highway Departments, and where exempted by the Works Progress Administrator, not over 8 hours a day and 130 hours a month for manual labor and 8 hours a day and 40 hours a week for clerical and non-manual labor;

(c) Where projects are remote and inaccessible, requiring camps or floating equipment, not over 8 hours a day and 40 hours a week;

(d) On emergency conservation work and work relief under State and local emergency relief administrations, existing rules and regulations continue in force.

Section 18. *Conditions of Employment*—The following conditions, prescribed by the Executive order, shall be observed on all projects:

(a) No person under 16 years of age and no one whose age or physical condition makes employment dangerous for him or endangers the health or safety of others, may be employed. Handicapped persons may be employed on work suitable for their abilities.

(b) No person may be employed who is currently serving a sentence to any penal or correctional institution;

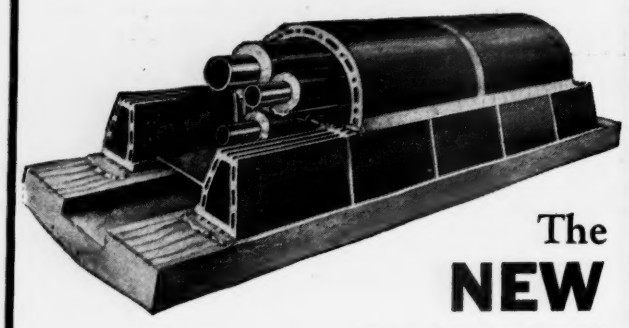
(c) Unless under specific exception by the Works Progress Administration, at least 90 percent of all persons working on projects shall be from the public relief rolls.

(d) Only one member of a family group may be employed on the Works program, except as specifically authorized by the Works Progress Administration;

(e) Except as specifically provided, no person who is qualified by training or experience may be discriminated against on any grounds.

(f) Working conditions must be conducive to safety and every effort shall be made to prevent accidents. (The sponsor is in no way relieved of responsibility in the matter);

(g) Wages to be paid by the Federal Government may not be pledged or assigned.



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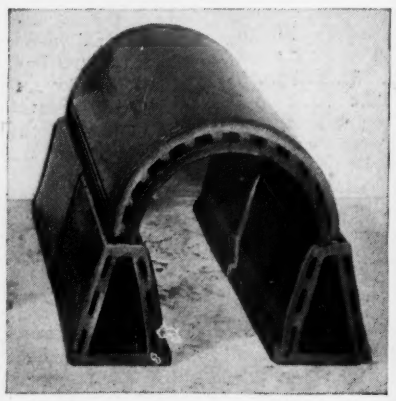
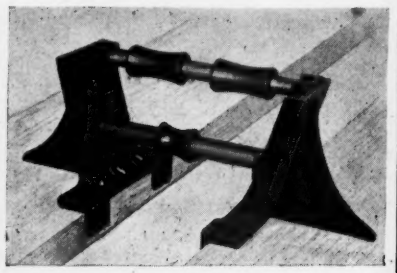


(Fig. 1)—This combination of arch tile and base blocks explains why THERM-O-TILE is so strong.



(Fig. 2)—Adjustable pipe supports rest directly on concrete base.

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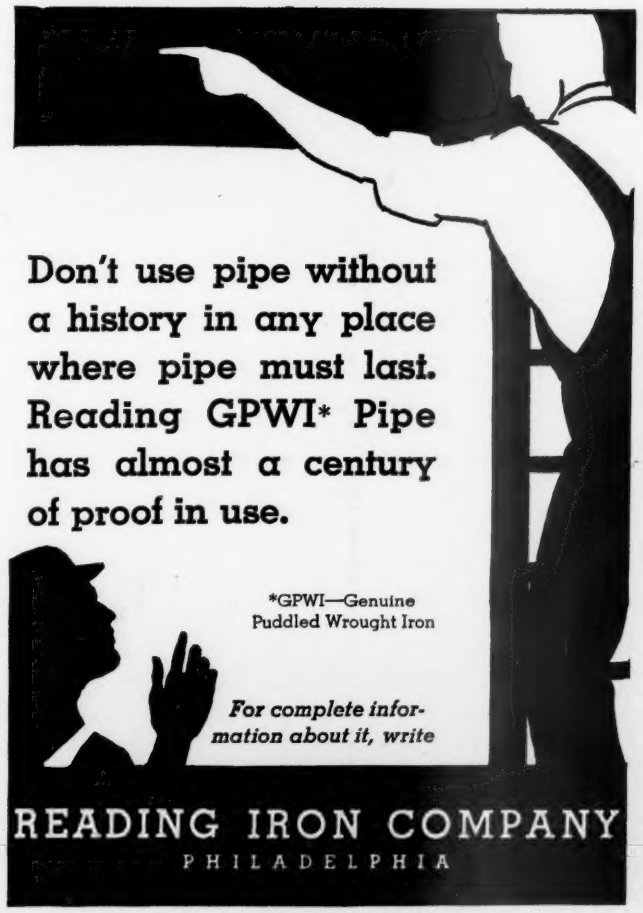

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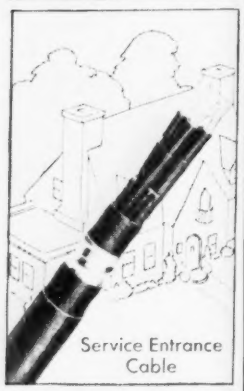
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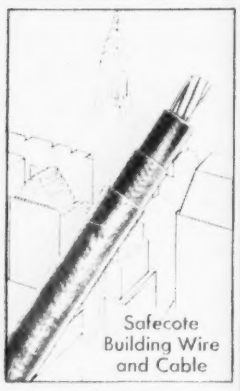
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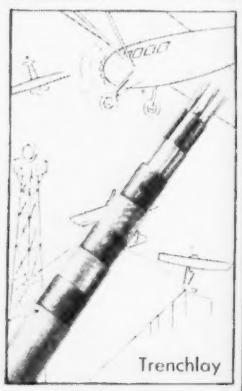
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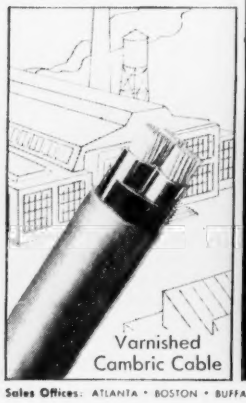
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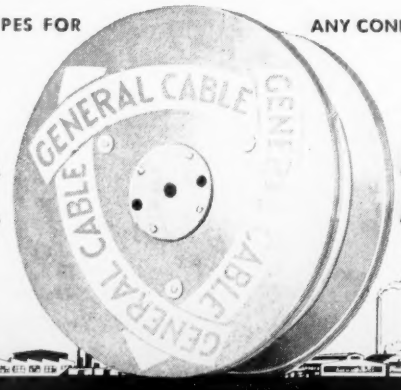

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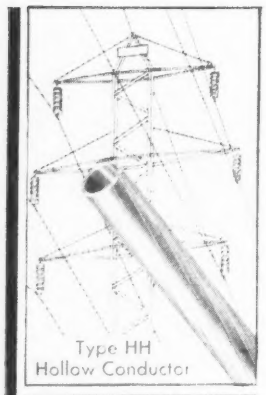
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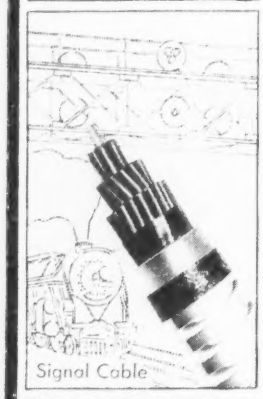
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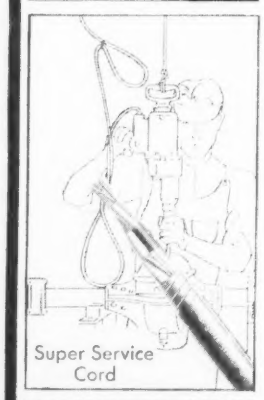
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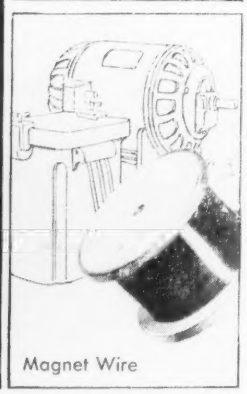
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